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OM protein - protein search, using sw model

Run on: August 24, 2005, 18:40:12 ; Search time 161 Seconds

(Without alignments)
248.086 Million cell updates/sec

Title: US-09-763-393-1

Perfect score: 541
1 MSNRVSRSRGRGDQGEAPD.....EKTPPKAKTKYKADGQP 102Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1759131 seqs, 391586102 residues

Total number of hits satisfying chosen parameters: 1759131

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Published Applications AA:*

- 1: /cgn2_6/prodata/1/pubppaa/US07_PUBCOMB.pep:*
- 2: /cgn2_6/prodata/1/pubppaa/PCT_NEW_PUB.pep:*
- 3: /cgn2_6/prodata/1/pubppaa/US06_NEW_PUB.pep:*
- 4: /cgn2_6/prodata/1/pubppaa/US06_PUBCOMB.pep:*
- 5: /cgn2_6/prodata/1/pubppaa/US07_NEW_PUB.pep:*
- 6: /cgn2_6/prodata/1/pubppaa/PCTUS_PUBCOMB.pep:*
- 7: /cgn2_6/prodata/1/pubppaa/US08_NEW_PUB.pep:*
- 8: /cgn2_6/prodata/1/pubppaa/US08_PUBCOMB.pep:*
- 9: /cgn2_6/prodata/1/pubppaa/US09A_PUBCOMB.pep:*
- 10: /cgn2_6/prodata/1/pubppaa/US09B_PUBCOMB.pep:*
- 11: /cgn2_6/prodata/1/pubppaa/US09C_PUBCOMB.pep:*
- 12: /cgn2_6/prodata/1/pubppaa/US09_NEW_PUB.pep:*
- 13: /cgn2_6/prodata/1/pubppaa/US10A_PUBCOMB.pep:*
- 14: /cgn2_6/prodata/1/pubppaa/US10B_PUBCOMB.pep:*
- 15: /cgn2_6/prodata/1/pubppaa/US10C_PUBCOMB.pep:*
- 16: /cgn2_6/prodata/1/pubppaa/US10D_PUBCOMB.pep:*
- 17: /cgn2_6/prodata/1/pubppaa/US10E_PUBCOMB.pep:*
- 18: /cgn2_6/prodata/1/pubppaa/US11A_PUBCOMB.pep:*
- 19: /cgn2_6/prodata/1/pubppaa/US11_NEW_PUB.pep:*
- 20: /cgn2_6/prodata/1/pubppaa/US11_NEW_PUB.pep:*
- 21: /cgn2_6/prodata/1/pubppaa/US60_NEW_PUB.pep:*
- 22: /cgn2_6/prodata/1/pubppaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	541	100.0	102	US-10-205-823-186	Sequence 186, App
2	541	100.0	102	US-10-821-273-2	Sequence 2, Appl
3	528	97.6	99	US-10-131-409-46	Sequence 46, Appl
4	528	97.6	99	US-10-139-854-46	Sequence 46, Appl
5	528	97.6	99	US-10-150-813-46	Sequence 46, Appl
6	528	97.6	99	US-10-150-811-46	Sequence 46, Appl
7	295.5	54.6	109	US-10-131-409-28	Sequence 28, Appl
8	295.5	54.6	109	US-10-131-409-38	Sequence 38, Appl
9	295.5	54.6	109	US-10-139-854-28	Sequence 28, Appl
10	295.5	54.6	109	US-10-139-854-38	Sequence 38, Appl
11	295.5	54.6	109	US-10-150-813-28	Sequence 28, Appl

12	295.5	54.6	109	US-10-150-813-38	Sequence 38, Appl
13	295.5	54.6	109	US-10-150-811-28	Sequence 28, Appl
14	295.5	54.6	109	US-10-150-811-38	Sequence 38, Appl
15	219	40.5	41	US-10-029-386-31312	Sequence 31312, A
16	181.5	33.5	111	US-10-054-683-37	Sequence 37, Appl
17	181.5	33.5	111	US-10-131-409-4	Sequence 4, Appl
18	181.5	33.5	111	US-10-131-409-37	Sequence 37, Appl
19	181.5	33.5	111	US-10-139-854-4	Sequence 4, Appl
20	181.5	33.5	111	US-10-139-854-37	Sequence 37, Appl
21	181.5	33.5	111	US-10-150-813-4	Sequence 4, Appl
22	181.5	33.5	111	US-10-150-813-37	Sequence 37, Appl
23	181.5	33.5	111	US-10-150-811-4	Sequence 4, Appl
24	181.5	33.5	111	US-10-150-811-37	Sequence 37, Appl
25	181.5	33.5	111	US-10-473-603-37	Sequence 37, Appl
26	176	32.5	110	US-10-054-683-21	Sequence 21, Appl
27	176	32.5	110	US-10-188-832-143	Sequence 143, Appl
28	168.5	31.1	111	US-10-473-603-21	Sequence 21, Appl
29	168.5	31.1	111	US-10-131-409-6	Sequence 6, Appl
30	168.5	31.1	111	US-10-131-409-110	Sequence 110, Appl
31	168.5	31.1	111	US-10-139-854-6	Sequence 6, Appl
32	168.5	31.1	111	US-10-139-854-110	Sequence 110, Appl
33	168.5	31.1	111	US-10-150-813-6	Sequence 6, Appl
34	168.5	31.1	111	US-10-150-813-110	Sequence 110, Appl
35	168.5	31.1	111	US-10-150-811-6	Sequence 6, Appl
36	168.5	31.1	111	US-10-150-811-110	Sequence 110, Appl
37	156.5	28.9	137	US-10-072-012-431	Sequence 431, App
38	156	28.8	111	US-09-974-298-127	Sequence 127, App
39	156	28.8	111	US-10-093-766-36	Sequence 36, App
40	156	28.8	111	US-10-072-012-110	Sequence 110, App
41	156	28.8	111	US-10-072-012-112	Sequence 112, App
42	156	28.8	111	US-10-072-012-432	Sequence 432, App
43	156	28.8	111	US-10-072-012-433	Sequence 433, App
44	156	28.8	111	US-10-473-603-39	Sequence 39, Appl
45	147.5	27.3	185	US-10-072-012-434	Sequence 434, App

ALIGNMENTS

RESULT 1
US-10-205-823-186
Sequence 186, Application US/10205823
Publication No. US20030108963A1
GENERAL INFORMATION:
APPLICANT: Schlegel, Robert
APPLICANT: Monahan, John E.
APPLICANT: Endege, Wilson O.
APPLICANT: Gannavarapu, Manjula
APPLICANT: Gorbacheva, Bella
APPLICANT: Hoersch, Sebastian
APPLICANT: Kamatkar, Shubhangt
APPLICANT: Wonesey, Angela M.
APPLICANT: Glatz, Karen
APPLICANT: Zhao, Xumei
APPLICANT: Anderson, Duertin
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
FILE REFERENCE: MRI-044
CURRENT APPLICATION NUMBER: US/10/205,823
PRIOR FILING DATE: 2002-07-25
PRIOR APPLICATION NUMBER: 60/307,982
PRIOR FILING DATE: 2001-07-25
PRIOR APPLICATION NUMBER: 60/314,356
PRIOR FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/325,020
PRIOR FILING DATE: 2001-09-25
PRIOR APPLICATION NUMBER: 60/341,746
PRIOR FILING DATE: 2001-12-12
PRIOR APPLICATION NUMBER: 60/362,158
PRIOR FILING DATE: 2002-03-05
NUMBER OF SEQ ID NOS: 455
SOFTWARE: FastSeq for Windows Version 4.0

SEQ ID NO 186
LENGTH: 102
TYPE: PRT
ORGANISM: Homo sapiens
US-10-823-186

Query Match 100.0%; Score 541; DB 14; Length 102;
Best Local Similarity 100.0%; Pred. No. 2.1e-42;
Matches 102; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MSARVSRSGRGDGEAPDVFAVAPGESQOEPPPTNDIDIEPGQEREGTPIERKYE 60
DB 1 MSARVSRSGRGDGEAPDVFAVAPGESQOEPPPTNDIDIEPGQEREGTPIERKYE 60

QY 61 GDCQEMDLEKTRSERGSDGVKKEKTPPNPKAKTKKAGDGP 102
DB 61 GDCQEMDLEKTRSERGSDGVKKEKTPPNPKAKTKKAGDGP 102

RESULT 2

US-10-821-2732
Sequence 2 Application US/10821273
Publication No. US20040248256A1

GENERAL INFORMATION:
APPLICANT: Jacobs, Kenneth
APPLICANT: McCoy, John M.
APPLICANT: Lavallic, Edward R.
APPLICANT: Collins-Racie, Lisa A.
APPLICANT: Evans, Cheryl
APPLICANT: Metberg, David
APPLICANT: Treacy, Maurice
APPLICANT: Agostino, Michael J.
APPLICANT: Steinger II, Robert J.
APPLICANT: Bowman, Michael R.
APPLICANT: Di Blasio-Smith, Elizabeth
APPLICANT: Widom, Angela
TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES ENCODING THEM
FILE REFERENCE: 00766.000101.
CURRENT FILING DATE: 2004-04-09
PRIOR FILING DATE: 2004-04-09
PRIOR APPLICATION NUMBER: US 09/306,111
PRIOR FILING DATE: 1999-05-06
PRIOR APPLICATION NUMBER: US 60/084,564
PRIOR FILING DATE: 1998-05-07
PRIOR APPLICATION NUMBER: US 60/087,645
PRIOR FILING DATE: 1998-06-02
PRIOR APPLICATION NUMBER: US 60/093,712
PRIOR FILING DATE: 1998-07-22
PRIOR APPLICATION NUMBER: US 60/094,935
PRIOR FILING DATE: 1998-07-31
PRIOR APPLICATION NUMBER: US 60/095,880
PRIOR FILING DATE: 1998-08-10
PRIOR APPLICATION NUMBER: US 60/096,068
PRIOR FILING DATE: 1998-08-11
NUMBER OF SEQ ID NOS: 180
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
LENGTH: 102
TYPE: PRT
ORGANISM: Homo sapiens
US-10-821-273-2

Handwritten: 2 p. 64-65

RESULT 3
US-10-131-409-46
Sequence 46 Application US/10131409
Publication No. US20030199465A1
GENERAL INFORMATION:

APPLICANT: Malyskar et al.
TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoding Same
FILE REFERENCE: 15966-675CIPCON1
CURRENT FILING DATE: US/10/131,409
CURRENT FILING DATE: 2002-10-24
PRIOR APPLICATION NUMBER: 09/898,954
PRIOR FILING DATE: 2001-07-03
PRIOR APPLICATION NUMBER: 60/182,733
PRIOR FILING DATE: 2000-02-15
PRIOR APPLICATION NUMBER: 60/182,724
PRIOR FILING DATE: 2000-02-15
PRIOR APPLICATION NUMBER: 60/183,896
PRIOR FILING DATE: 2000-02-22
PRIOR APPLICATION NUMBER: 60/184,497
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/224,157
PRIOR FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/184,482
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/184,744
PRIOR FILING DATE: 2000-02-24
PRIOR APPLICATION NUMBER: 60/197,083
PRIOR FILING DATE: 2000-04-13
PRIOR APPLICATION NUMBER: 60/233,405
PRIOR FILING DATE: 2000-09-18
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 135
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 46
LENGTH: 99
TYPE: PRT
ORGANISM: Homo sapiens
US-10-131-409-46

Query Match 97.6%; Score 528; DB 14; Length 99;
Best Local Similarity 100.0%; Pred. No. 3.3e-41;
Matches 99; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4 RYRSRSRSGRGDGEAPDVFAVAPGESQOEPPPTNDIDIEPGQEREGTPIERKVEGDC 63
DB 1 RYRSRSRSGRGDGEAPDVFAVAPGESQOEPPPTNDIDIEPGQEREGTPIERKVEGDC 60
QY 64 QEMDLEKTRSERGSDGVKKEKTPPNPKAKTKKAGDGP 102
DB 61 QEMDLEKTRSERGSDGVKKEKTPPNPKAKTKKAGDGP 99

RESULT 4

US-10-139-854-46
Sequence 46 Application US/10139854
Publication No. US20030202971A1
GENERAL INFORMATION:
APPLICANT: Majumder, Kumud
TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoding Same
FILE REFERENCE: 15966-675CON2
CURRENT FILING DATE: US/10/139,854
CURRENT FILING DATE: 2002-12-02
PRIOR APPLICATION NUMBER: 09/783,429
PRIOR FILING DATE: 2001-02-14
PRIOR APPLICATION NUMBER: 60/182,733
PRIOR FILING DATE: 2000-02-15
PRIOR APPLICATION NUMBER: 60/182,724
PRIOR FILING DATE: 2000-02-15
PRIOR APPLICATION NUMBER: 60/183,896
PRIOR FILING DATE: 2000-02-22
PRIOR APPLICATION NUMBER: 60/184,497

```

; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/224,157
; PRIOR FILING DATE: 2000-08-10
; PRIOR APPLICATION NUMBER: 60/184,482
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,744
; PRIOR FILING DATE: 2000-02-24
; PRIOR APPLICATION NUMBER: 60/197,083
; PRIOR FILING DATE: 2000-04-13
; PRIOR APPLICATION NUMBER: 60/233,405
; PRIOR FILING DATE: 2000-09-18
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 126
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 46
; LENGTH: 99
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-139-854-46
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Query Match      97.6%; Score 528; DB 15; Length 99;
Best Local Similarity 100.0%; Pred. No. 3.3e-41;
Matches 99; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY      4 RVSRSRGRGDDGEADPVVAFVAPGSGQEEPTNDNIDEPQERGTPIIERKYEGDC 63
          |||
DB      1 RVSRSRGRGDDGEADPVVAFVAPGSGQEEPTNDNIDEPQERGTPIIERKYEGDC 60

QY      64 QEMDLEKTRSERGSDGVYEKTPPNPKAKTKKAGGQGP 102
          |||
DB      61 QEMDLEKTRSERGSDGVYEKTPPNPKAKTKKAGGQGP 99
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RESULT 5

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; Sequence 46, Application US/10150813
; Publication No. US20030224367A1
; GENERAL INFORMATION:
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; APPLICANT: Malyanckar
; TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoding Same
; FILE REFERENCE: 15966-675CIP1CON2
; CURRENT APPLICATION NUMBER: US/10/150,813
; CURRENT FILING DATE: 2002-12-03
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; PRIOR APPLICATION NUMBER: 09/898,954
; PRIOR FILING DATE: 2001-07-03
; PRIOR APPLICATION NUMBER: 60/182,733
; PRIOR FILING DATE: 2000-02-15
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; PRIOR APPLICATION NUMBER: 60/182,724
; PRIOR FILING DATE: 2000-02-15
; PRIOR APPLICATION NUMBER: 60/183,896
; PRIOR FILING DATE: 2000-02-22
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; PRIOR APPLICATION NUMBER: 60/184,497
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/224,157
; PRIOR FILING DATE: 2000-08-10
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; PRIOR APPLICATION NUMBER: 60/184,482
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,744
; PRIOR FILING DATE: 2000-02-24
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; PRIOR APPLICATION NUMBER: 60/197,083
; PRIOR FILING DATE: 2000-04-13
; PRIOR APPLICATION NUMBER: 60/233,405
; PRIOR FILING DATE: 2000-09-18
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; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 135
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 46
; LENGTH: 99
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-150-813-46
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Query Match      97.6%; Score 528; DB 15; Length 99;
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Best Local Similarity 100.0%; Pred. No. 3.3e-41;
Matches 99; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY      4 RVSRSRGRGDDGEADPVVAFVAPGSGQEEPTNDNIDEPQERGTPIIERKYEGDC 63
          |||
DB      1 RVSRSRGRGDDGEADPVVAFVAPGSGQEEPTNDNIDEPQERGTPIIERKYEGDC 60

QY      64 QEMDLEKTRSERGSDGVYEKTPPNPKAKTKKAGGQGP 102
          |||
DB      61 QEMDLEKTRSERGSDGVYEKTPPNPKAKTKKAGGQGP 99
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RESULT 6

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; Sequence 46, Application US/10150811
; Publication No. US20040010120A1
; GENERAL INFORMATION:
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; APPLICANT: Malyanckar et al.
```

```

; TITLE OF INVENTION: No. US0040010120A1el Polypeptides and Nucleic Acids Encoding Same
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; FILE REFERENCE: 15966-675CIP2CON1
; CURRENT APPLICATION NUMBER: US/10/150,811
; CURRENT FILING DATE: 2002-05-17
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; PRIOR APPLICATION NUMBER: 09/970,607
; PRIOR FILING DATE: 2001-10-03
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; PRIOR APPLICATION NUMBER: 60/182,733
; PRIOR FILING DATE: 2000-02-15
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; PRIOR APPLICATION NUMBER: 60/182,724
; PRIOR FILING DATE: 2000-02-15
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```

; PRIOR APPLICATION NUMBER: 60/183,896
; PRIOR FILING DATE: 2000-02-22
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; PRIOR APPLICATION NUMBER: 60/184,497
; PRIOR FILING DATE: 2000-02-23
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```

; PRIOR APPLICATION NUMBER: 60/224,157
; PRIOR FILING DATE: 2000-08-10
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```

; PRIOR APPLICATION NUMBER: 60/184,482
; PRIOR FILING DATE: 2000-02-23
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```

; PRIOR APPLICATION NUMBER: 60/184,744
; PRIOR FILING DATE: 2000-02-24
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; PRIOR APPLICATION NUMBER: 60/197,083
; PRIOR FILING DATE: 2000-04-13
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; PRIOR APPLICATION NUMBER: 60/233,405
; PRIOR FILING DATE: 2000-09-18
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; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 138
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 46
; LENGTH: 99
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-150-811-46
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Query Match      97.6%; Score 528; DB 15; Length 99;
Best Local Similarity 100.0%; Pred. No. 3.3e-41;
Matches 99; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY      4 RVSRSRGRGDDGEADPVVAFVAPGSGQEEPTNDNIDEPQERGTPIIERKYEGDC 63
          |||
DB      1 RVSRSRGRGDDGEADPVVAFVAPGSGQEEPTNDNIDEPQERGTPIIERKYEGDC 60

QY      64 QEMDLEKTRSERGSDGVYEKTPPNPKAKTKKAGGQGP 102
          |||
DB      61 QEMDLEKTRSERGSDGVYEKTPPNPKAKTKKAGGQGP 99
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RESULT 7

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; Sequence 28, Application US/10131409
; Publication No. US20030199465A1
; GENERAL INFORMATION:
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; APPLICANT: Malyanckar et al.
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; TITLE OF INVENTION: No. US20030199465A1el Polypeptides and Nucleic Acids Encoding Same
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; FILE REFERENCE: 15966-675CIP1CON1
; CURRENT APPLICATION NUMBER: US/10/131,409
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US-10-131-409-28

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; Sequence 28, Application US/10131409
; Publication No. US20030199465A1
; GENERAL INFORMATION:
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; APPLICANT: Malyanckar et al.
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; TITLE OF INVENTION: No. US20030199465A1el Polypeptides and Nucleic Acids Encoding Same
```

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; FILE REFERENCE: 15966-675CIP1CON1
; CURRENT APPLICATION NUMBER: US/10/131,409
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US-10-131-409-28

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Query Match      97.6%; Score 528; DB 15; Length 99;
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, CURRENT FILING DATE: 2002-10-24
, PRIOR APPLICATION NUMBER: 09/898,954
, PRIOR FILING DATE: 2001-07-03
, PRIOR APPLICATION NUMBER: 60/182,733
, PRIOR FILING DATE: 2000-02-15
, PRIOR APPLICATION NUMBER: 60/182,724
, PRIOR FILING DATE: 2000-02-15
, PRIOR APPLICATION NUMBER: 60/183,896
, PRIOR FILING DATE: 2000-02-22
, PRIOR APPLICATION NUMBER: 60/184,497
, PRIOR FILING DATE: 2000-02-23
, PRIOR APPLICATION NUMBER: 60/224,157
, PRIOR FILING DATE: 2000-08-10
, PRIOR APPLICATION NUMBER: 60/184,482
, PRIOR FILING DATE: 2000-02-23
, PRIOR APPLICATION NUMBER: 60/184,744
, PRIOR FILING DATE: 2000-02-24
, PRIOR APPLICATION NUMBER: 60/197,083
, PRIOR FILING DATE: 2000-04-13
, PRIOR APPLICATION NUMBER: 60/233,405
, PRIOR FILING DATE: 2000-09-18
, Remaining Prior Application data removed - See File Wrapper or PALM.
, NUMBER OF SEQ ID NOS: 135
, SOFTWARE: PatentIn Ver. 2.1
, SEQ ID NO 28
, LENGTH: 109
, TYPE: PRT
, ORGANISM: Homo sapiens
JS-10-131-409-28

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Query Match	54.6%;	Score 295.5;	DB 14;	Length 109;
Best Local Similarity	61.5%;	Pred. No. 1e-19;		
Matches 64;	Conservative	4;	Mismatches 31;	Indels 5;
				Gaps

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Oy 4 RVRSSRGKGCQGEAPDVAFVAPGE-----SQQEEPPDNDIEPQEEHGTPIIEERK 58
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 6 RARSSSERKNDQESSQPVGSIVIQEPTIEKRQGEPPDNDIDIEPQEEHGTPIIEERK 65

```

QY 59 VEGDCQEMDIETRSERGDGDVYEKTEPPNPKIAKTKYAGDGP 102
| | | | | | | | | | : | | | | |
Db 66 VEGDCQEMALLKIEDEPBGDGPVREGIMPTFDLTKVLEAGDAQP 109

RESULT 8
US-10-131-409-38

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: GENERAL INFORMATION:
:
: APPLICANT: Malyankar et al.

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? CURRENT APPLICATION NUMBER: US/10/131,409
 : CURRENT FILING DATE: 2002-10-24

; PRIORITY APPLICATION NUMBER: 60/182,733
 ; PRIORITY FILING DATE: 2000-02-15

PRIOR APPLICATION NUMBER: 60/183,896
PRIOR FILING DATE: 2000-02-22

; PRIOR APPLICATION NUMBER: 60/224,157
 ; PRIOR FILING DATE: 2000-08-10
 ; PRIOR APPLICATION NUMBER: 60/224,157

; PRIOR APPLICATION NUMBER: 60/184,744
 ; PRIOR FILING DATE: 2000-02-24
 ; PUBLICATION NUMBER: 1,000,000,000

;; PRIOR APPLICATION NUMBER: 60/233,405
;; PRIOR FILING DATE: 2000-09-18

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; Remaining Prior Application data removed - See File Wrapper or PALM.
;
; NUMBER OF SEQ ID NOS: 135
;
; SOFTWARE: PatentIn Ver. 2.1
;
; SEQ ID NO 38
;
; LENGTH: 109
;
; TYPE: PRT
;
; ORGANISM: Homo sapiens
;
OS-10-131-409-38

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Query Match	54.6%;	Score 295.5;	DB 14;	Length 109;
Best Local Similarity	61.5%;	Pred. No. 1e-19;		
Matches 64;	Conservative	4;	Mismatches 31;	Indels 5;
				Gaps 1;

Cy 4 RVRSRSGRGDQEAIPVVAFAAGS-----SQEEPTNDODIPEQERESTPTEERRK 58
|||
Db 6 RARSQSSEGRNQSSSPGVGSIYIVQEETEEKRQQEETPDNODIEPQERESTPTEERRK 65
|||||

QY 59 VGGDCCQEMDLKTRSERGDGSDVKEKPVPNPKAKTAEAGGP 102
| | | | | : | | | | |
Db 66 VEGDCCQEMALKI EDEPGDGDPVREGIMPTFLTKVL EAGDAQP 109

RESULT 9
US-10-139-854-28

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; GENERAL INFORMATION:
; APPLICANT: Majumder, Kumud

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; CURRENT APPLICATION NUMBER: US/10/139,854
; CURRENT FILING DATE: 2002-12-02
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; *****

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; PRIOR APPLICATION NUMBER: 60/182,733
 ; PRIOR FILING DATE: 2000-02-15
 ; PUBLICATION NUMBER: 2001/00704

; PRIOR APPLICATION NUMBER: 60/183,896
 ; PRIOR FILING DATE: 2000-02-22
 ; PUBLICATION NUMBER: 2002/0104402

PRIOR APPLICATION NUMBER: 60/224,157
PRIOR FILING DATE: 2000-08-10
PUBLICATION NUMBER: 2010/024,400

;; PRIOR APPLICATION NUMBER: 60/184,744
;; PRIOR FILING DATE: 2000-02-24
;; PUBLICATION NUMBER: 2002/0107 003

PRIOR APPLICATION NUMBER: 60/233,405
PRIOR FILING DATE: 2000-09-18
Detailed description and drawings are provided on P110

```

; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 28
; LENGTH: 100

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; ORGANISM: Homo sapiens
US-10-139-854-28

Best Local Similarity 61.5%; Pred. No. 1e-19;
Matches 64; Conservative 4; Mismatches 31; Indels 5; Gaps 1;

D_b 6 PARSSSEKNDQSSSQPVGSIVIDEPTTEKRGQEEPTNDQDIEFGQREGTPPIERK 65

D_b 66 VEGDCQEMALKIEDPEFGDPVREGIMPTFDLTQVLEAGDAQP 109


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Matches      64;  Conservative      4;  Mismatches      31;  Indels      5;  Gaps      1;

Oy      4      RVRSRSRGRGQGEAPDVVAFAVAPGE-----SQGEPPTDNODIEPGQEREGTPIIERK      58
      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
Db      6      RARSQSSSRGNDQSSQPVGSVIQEPTEERKQGEPPTDNODIEPGQEREGTPIIERK      65
      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

Oy      59      VEGGCGQEMDLKTRSERGSDGVKEKTPPNRKAHTKTAGGCGP      102
      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
Db      66      VEGDCQEMALKIIEDEPGDGPVREGIMPTFDLTKLVEAGDAQP      109
      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

RESULT 13
US-10-150-811-28
; Sequence 28, Application US/10150811
; Publication No. US20040010120A1
; GENERAL INFORMATION:
; APPLICANT: Malyankar et al.
; TITLE OF INVENTION: No. US20040010120A1el Polypeptides and Nucleic Acids Encoding Same
; FILE REFERENCE: 15966-675C1P2CON1
; CURRENT FILING DATE: 2002-05-17
; PRIOR APPLICATION NUMBER: 09/970,607
; PRIOR FILING DATE: 2001-10-03
; PRIOR APPLICATION NUMBER: 60/182,733
; PRIOR FILING DATE: 2000-02-15
; PRIOR APPLICATION NUMBER: 60/182,724
; PRIOR FILING DATE: 2000-02-15
; PRIOR APPLICATION NUMBER: 60/183,896
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: 60/184,497
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/224,157
; PRIOR FILING DATE: 2000-08-10
; PRIOR APPLICATION NUMBER: 60/184,482
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,744
; PRIOR FILING DATE: 2000-02-24
; PRIOR APPLICATION NUMBER: 60/197,083
; PRIOR FILING DATE: 2000-04-13
; PRIOR APPLICATION NUMBER: 60/233,405
; PRIOR FILING DATE: 2000-09-18
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 138
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 28
; LENGTH: 109
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-150-811-28

Query Match      54.6%; Score 295.5; DB 15; Length 109;
Best Local Similarity 61.5%; Pred. No. 1e-19;
Matches 64; Conservative 4; Mismatches 31; Indels 5; Gaps 1;

Oy      4      RVRSRSRGRGQGEAPDVVAFAVAPGE-----SQGEPPTDNODIEPGQEREGTPIIERK      58
      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
Db      6      RARSQSSSRGNDQSSQPVGSVIQEPTEERKQGEPPTDNODIEPGQEREGTPIIERK      65
      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

Oy      59      VEGGCGQEMDLKTRSERGSDGVKEKTPPNRKAHTKTAGGCGP      102
      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
Db      66      VEGDCQEMALKIIEDEPGDGPVREGIMPTFDLTKLVEAGDAQP      109
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RESULT 14
US-10-150-811-38
; Sequence 38, Application US/10150811
; Publication No. US20040010120A1
; GENERAL INFORMATION:
; APPLICANT: Malyankar et al.
; TITLE OF INVENTION: No. US20040010120A1el Polypeptides and Nucleic Acids Encoding Same
; FILE REFERENCE: 15966-675C1P2CON1
; CURRENT FILING DATE: 2002-05-17

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; PRIOR APPLICATION NUMBER: 09/970,607
; PRIOR FILING DATE: 2001-10-03
; PRIOR APPLICATION NUMBER: 60/182,733
; PRIOR FILING DATE: 2000-02-15
; PRIOR APPLICATION NUMBER: 60/182,724
; PRIOR FILING DATE: 2000-02-15
; PRIOR APPLICATION NUMBER: 60/183,896
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: 60/184,497
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/224,157
; PRIOR FILING DATE: 2000-08-10
; PRIOR APPLICATION NUMBER: 60/184,482
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,744
; PRIOR FILING DATE: 2000-02-24
; PRIOR APPLICATION NUMBER: 60/197,083
; PRIOR FILING DATE: 2000-04-13
; PRIOR APPLICATION NUMBER: 60/233,405
; PRIOR FILING DATE: 2000-09-18
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 138
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 38
; LENGTH: 109
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-150-811-38

Query Match
Best Local Similarity 54.6%; Score 295.5; DB 15; Length 109;
Matches 64; Conservative 4; Mismatches 31; Indels 5; Gaps 1;

4 RVRSRSRGRRDGGAPVYVAFVAPGE-----SQEERPTDNOIEGQEREGTPTPEERK 58
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
6 RARQSSERSSGNDQSSQPVGSSVIVQETPEERKQOEERPTDNOIEGQEREGTPTPEERK 65
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

59 VEGGCGEMDLEKTRSERKSGSDVYEKTPPNPKAKTKTKEAGDGP 102
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
66 VEGGCGEMALKTIEDPDDGPDVREGIMPTFDLTKTLEAGDAP 109
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RESULT 15
US-10-029-386-31312
; Sequence 31312, Application US/10029386
; Publication No. US20030194704A1
; GENERAL INFORMATION:
; APPLICANT: Penn, Sharon G.
; APPLICANT: Rank, David R.
; APPLICANT: Hanzel, David K.
; TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR G
; TITLE OF INVENTION: EXPRESSION ANALYSIS TWO
; FILE REFERENCE: AEOMICA-X-2
; CURRENT APPLICATION NUMBER: US/10/029,386
; CURRENT FILING DATE: 2001-12-20
; NUMBER OF SEQ ID NOS: 34288
; SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 31312
; LENGTH: 41
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: MAP TO AF238380.1
; OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 1.3
; OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 0.94
; OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 2.3
; OTHER INFORMATION: SWISSPROT HIT: O60829, EVALU 1.00e-18
US-10-029-386-31312

Query Match
Best Local Similarity 40.5%; Score 219; DB 14; Length 41;
Matches 41; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Thu Aug 25 08:49:42 2005

us-09-763-393-1.rapb

Page 7

OY 57 RKVEGDCQEMDLKTRSERGGSDGVKEKTPVPVPKAAKTKEA 97
DB 1 RKVEGCQCQEMDLKTRSERGGSDGVKEKTPVPVPKAAKTKEA 41			

Search completed: August 24, 2005, 18:46:36
Job time : 169 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: August 24, 2005, 18:30:13 ; Search time 58 Seconds

(Without alignments)
900.553 Million cell updates/sec

Title: US-09-763-393-1
Perfect score: 541
Sequence: 1 MSARVSRSGRGDGGAPD.....EKTTPNPKAKTKAAGDGP 102

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trcemb:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysts of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	541	100.0	102	1 GGCI_HUMAN	060829 homo sapien
2	176	32.5	130	2 Q96GDI	096911 homo sapien
3	168.5	31.1	111	2 Q722X7	072247 homo sapien
4	163.5	30.2	108	1 GGD5_HUMAN	08WML1 homo sapien
5	156	28.8	111	1 GGD4_HUMAN	08WML1 homo sapien
6	133	24.6	146	1 GGB1_HUMAN	075459 homo sapien
7	131.5	24.3	111	1 GGD3_HUMAN	096959 homo sapien
8	131	24.2	117	2 Q6NT33	06NT33 homo sapien
9	127	23.5	116	1 GGB8_HUMAN	09UEUS homo sapien
10	123	22.7	117	1 GGB5_HUMAN	013068 homo sapien
11	123	22.7	118	1 GGB3_HUMAN	013067 homo sapien
12	123	22.6	117	1 GGB6_HUMAN	013070 homo sapien
13	120	22.2	116	1 GGB2_HUMAN	013066 homo sapien
14	120	22.2	116	2 Q6NT46	06NT46 homo sapien
15	120	21.6	138	1 GGB7_HUMAN	013065 homo sapien
16	117	21.4	117	1 GGB7_HUMAN	076087 homo sapien
17	116	21.4	139	2 Q81YCS	081YCS homo sapien
18	113	20.9	139	2 Q81YCS	081YCS homo sapien
19	112	20.7	829	2 Q8NA60	08NA60 homo sapien
20	112	20.7	861	2 Q95404	095404 homo sapien
21	112	20.7	861	2 Q81YCS	081YCS homo sapien
22	112	20.7	861	2 Q96994	096994 homo sapien
23	108.5	20.1	485	2 Q6NXX0	06NXX0 mus musculu
24	108.5	20.1	862	2 Q9JMB7	09JMB7 mus musculu
25	104.5	19.3	792	2 Q9KFO3	09KFO3 bacillus ha
26	102.5	18.9	69	2 Q8WMM0	08WMM0 homo sapien
27	96.5	17.8	229	1 VBA_HPV08	066425 human papil
28	96.5	17.8	325	2 Q44016	044016 dictyostell
29	96.5	17.8	506	2 Q6ZPT3	06ZPT3 mus musculu
30	94.5	17.5	524	1 T2FA_XENLA	004870 xenopus lae
31	94.5	17.5	524	2 Q8JGL7	08JGL7 xenopus lae

32	94	17.4	284	2 Q8HYJ0	08HYJ0 felis silve
33	92.5	17.1	197	2 Q23872	Q23872 dictyostell
34	92.5	17.1	555	2 Q8NA99	Q8NA99 homo sapien
35	92.5	17.1	686	2 Q6ZRC5	Q6ZRC5 homo sapien
36	92.5	17.1	780	2 Q96C66	Q96C66 homo sapien
37	92.5	17.1	1783	2 Q15038	Q15038 homo sapien
38	92.5	17.1	1791	2 Q60382	Q60382 homo sapien
39	92.5	17.1	2296	2 Q9UHA8	Q9UHA8 homo sapien
40	92	17.0	606	1 CENB_CRIGR	Q9UHA8 homo sapien
41	92	17.0	702	2 Q7TYX8	P48988 cricetulus
42	92	17.0	910	2 Q7TQ48	Q7TQ48 mus musculu
43	91.5	16.9	727	2 Q95TG7	Q95TG7 drosophila
44	91.5	16.9	5303	2 Q9V628	Q9V628 drosophila
45	91	16.8	2460	1 RPL1_HUMAN	Q81W17 homo sapien

ALIGNMENTS

RESULT 1
GGCI_HUMAN STANDARD; PRT; 102 AA.
AC 060829;
DT 16-OCT-2001 (Rel. 40, Last Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE G antigen family C 1 protein (Prostate-associated gene protein 4)
DE (PAGE-4) (PAGE-1) (JM27) (GAGE-9).
GN Name=GAGEC1; Synonym=GAGE4;
OS Homo sapiens (Human)
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_Taxid=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=98393718; PubMed=9724777; DOI=10.1073/pnas.95.18.10757;
RA Brinkmann U., Vasmatzis G., Lee B., Verushalini N., Essand M.,
RA Pastan I.,
RT "PAGE-1, an X chromosome-linked GAGE-like gene that is expressed in
RT normal and neoplastic prostate, testis, and uterus."
RL Proc. Natl. Acad. Sci. U.S.A. 95:10757-10762(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA Strom T.M., Nyakatura G., Hellbrand H., Dreescher B., Rosenthal A.,
RA Weindl A.,
RN Submitted (APR-1998) to the EMBL/Genbank/DBJ databases.
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L.H., Shennan C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Scheffer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Ustun T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullighan S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richardson S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahy J., Helton B., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
RA Whitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butlerfield V.S.N., Krzywicki M.I., Skalska U., Smallus D.E.,
RA Scherch A., Schein J.E., Jones S.J.M., Marra M.A.,
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences."
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC -!- FUNCTION: Unknown.
CC -!- TISSUE SPECIFICITY: Preferentially expressed in normal male and
CC female reproductive tissues, prostate, testis, fallopian tube.

Sgt 1/18
1/18

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CC      uterus, and placenta, as well as in prostate cancer, testicular
CC      cancer, and uterine cancer.
CC      -1- SIMILARITY: Belongs to the GAGE family.
CC      -----
CC      This SWISS-PROT entry is copyright. It is produced through a collaboration
CC      between the Swiss Institute of Bioinformatics and the EMBL outstation-
CC      the European Bioinformatics Institute. There are no restrictions on its
CC      use by non-profit institutions as long as its content is in no way
CC      modified and this statement is not removed. Usage by and for commercial
CC      entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC      or send an email to license@isb-sib.ch).
CC      -----
DR      EMBL; AF275258; AAF8037.1; -.
DR      EMBL; AJ005894; CA06751.1; -.
DR      EMBL; AF238380; -. NOT ANNOTATED_CDS.
DR      EMBL; BC010897; AAH0897.1; -.
DR      Genew; HGNC:4108; GAGEC1.
DR      H-InvDB; HIX0016804; -.
DR      MIM; 300287; -.
DR      InterPro; IPR008625; GAGE.
DR      Pfam; PF05831; GAGE; 1.
KW      Multigene family.
SQ      SEQUENCE 102 AA; 11153 MW; CESD07AFBF73301B CRC64;

Query Match          100.0%; Score 541; DB 1; Length 102;
Best Local Similarity 100.0%; Pred. No. 1.6e-36;
Matches 102; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 MSARVRSRSGRGDGGAPDVVAFVAFGESQGEPPPTNDQIEPQERGTPIERKYE 60
DB      1 MSARVRSRSGRGDGGAPDVVAFVAFGESQGEPPPTNDQIEPQERGTPIERKYE 60
QY      61 GDCQEMDLKTRSERGSDGVKXKTPPNPKATKXAGDGP 102
DB      61 GDCQEMDLKTRSERGSDGVKXKTPPNPKATKXAGDGP 102

RESULT 2
Q96GUL PRELIMINARY; PRT; 130 AA.
AC      Q96GUL; Q8WWL9;
DT      01-DEC-2001 (TREMBlrel. 19, Created)
DT      01-MAR-2004 (TREMBlrel. 26, Last sequence update)
DT      25-OCT-2004 (TREMBlrel. 28, Last annotation update)
DE      PAGE-5 protein.
GN      Name=PAGE-5;
OS      Homo sapiens (Human).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX      NCBI_TaxId=9606;
RN      [1]
RP      SEQUENCE FROM N.A.
RC      TISSUE=Skin;
RC      MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA      Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA      Klausner R.D., Collins F.S., Wagner L., Shennan C.M., Schuler G.D.,
RA      Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA      Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA      Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA      Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA      Brownstein M.J., Uesdi T.B., Toshiyuki S., Carninci P., Prange C.,
RA      Raha S.S., Loughran N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA      Bosa S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA      Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulik S.W.,
RA      Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA      Fahy J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
RA      Blakesley R.W., Touchman J.W., Green E.D., Bouffard G.G.,
RA      Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA      Krzywinski M.I., Skalska U., Smalls D.E., Scherch A., Schein J.E.,
RA      Jones S.J., Marra M.A.;
RT      "Generation and initial analysis of more than 15,000 full-length human
RT      and mouse cDNA sequences.";
```

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RL      Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
RN      [2]
RP      SEQUENCE FROM N.A.
RC      TISSUE=Skin;
RA      Strausberg R.;
RL      Submitted (JUN-2001) to the EMBL/GenBank/DBJ databases.
RN      [3]
RP      SEQUENCE FROM N.A.
RA      Zeman A.J.W., van Kraats A.A., Weidle U.H., Ruiter D.J.,
RA      Van Muljen G.N.P.;
RL      Submitted (SEP-2001) to the EMBL/GenBank/DBJ databases.
DR      EMBL; BC009230; AAH09230.2; -.
DR      EMBL; AJ344352; CAC87642.1; -.
DR      InterPro; IPR008625; GAGE.
DR      Pfam; PF05831; GAGE; 1.
SQ      SEQUENCE 130 AA; 14046 MW; 17560A12BE103424 CRC64;

Query Match          32.5%; Score 176; DB 2; Length 130;
Best Local Similarity 43.1%; Pred. No. 6.3e-07;
Matches 47; Conservative 11; Mismatches 43; Indels 8; Gaps 3;

QY      1 MSARVRSRSGRGDGA-----PDVVAFVAFGESQGEPPPTNDQIEPQGE--REGTP 52
DB      21 MSEHTVRSQSESRGNDQSSQPVGPIVIOQPTIEKRGQEEPPPTNDQIAPSGEIKNEGAP 80
QY      53 PIEERKVGDDQEMDLKTRSERGSDGVKXKTPPNPKATKXAGDGP 101
DB      81 AVQGTVEAFQDELALXIEDAPGDPVREGTPTFTPTVLEAGSGQ 129

RESULT 3
Q72ZX7 PRELIMINARY; PRT; 111 AA.
AC      Q72ZX7;
DT      01-OCT-2003 (TREMBlrel. 25, Created)
DT      01-OCT-2003 (TREMBlrel. 25, Last sequence update)
DT      01-OCT-2003 (TREMBlrel. 25, Last annotation update)
DE      Similar to PAGE-5 protein.
GN      Name=MG62094;
OS      Homo sapiens (Human).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX      NCBI_TaxId=9606;
RN      [1]
RP      SEQUENCE FROM N.A.
RC      TISSUE=Pooled;
RC      MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA      Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA      Klausner R.D., Collins F.S., Wagner L., Shennan C.M., Schuler G.D.,
RA      Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA      Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA      Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA      Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA      Brownstein M.J., Uesdi T.B., Toshiyuki S., Carninci P., Prange C.,
RA      Raha S.S., Loughran N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA      Bosa S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA      Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulik S.W.,
RA      Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA      Fahy J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
RA      Blakesley R.W., Touchman J.W., Green E.D., Bouffard G.G.,
RA      Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA      Krzywinski M.I., Skalska U., Smalls D.E., Scherch A., Schein J.E.,
RA      Jones S.J., Marra M.A.;
RT      "Generation and initial analysis of more than 15,000 full-length human
RT      and mouse cDNA sequences.";
RL      Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
RN      [2]
RP      SEQUENCE FROM N.A.
RC      TISSUE=Pooled;
RA      Strausberg R.;
RL      Submitted (JUN-2003) to the EMBL/GenBank/DBJ databases.
DR      EMBL; BC054022; AAH54022.1; -.
```

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DR InterPro: IPR008625; GAGE.
DR Pfam: PF05831; GAGE; 1.
SQ SEQUENCE 111 AA; 12090 MW; C0692E3DP2C905F8 CRC64;

Query Match
Best Local Similarity 42.5%; Pred. No. 2.1e-06;
Matches 45; Conservative 10; Mismatches 44; Indels 7; Gaps 3;

QY 4 RVNSRSGRGDGEAPVNAFVAPGE-----SQDEEPTNDIIEP-GQ-EREETPIIEE 56
DB 6 RAQSSESENDDSSQPVGSVIVQETPERKQEEBEPPTNDGIAVSGEIQAVDAVPAQ 65
DB 66 PDMEARQQLALAKIEDEPGDGPVAREGIMPTDILTKVLEAGDAQP 111

RESULT 4
GCD5 HUMAN STANDARD; PRT; 108 AA.
AC O8KWT1;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE G antigen family D 5 protein (XAGE-5 protein).
GN Name=GAGED5; Synonyms=XAGE5;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX NCBI_Taxid=9606;
[1]
RP SEQUENCE FROM N.A.
RX MEDLINE=22021429; PubMed=11992404; DOI=10.1002/jgc.10371;
RA Zenden A.U.W., Van Kraats A.A., Weidie U.H., Rulter D.J.,
RA Van Muljen G.N.P.;
RT "The XAGE family of cancer/testis-associated genes: alignment and
RT expression profile in normal tissues, melanoma lesions and Ewing's
RT sarcoma.";
RL Int. J. Cancer 99:361-369(2002).
RN [2]

SEQUENCE FROM N.A.
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Klausner R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Alteschul S.F., Collins F.S., Wagner L., Shemen C.M., Schuler G.D.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diachenko D., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Raha S.S., Loggellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richard S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahy J., Helton E., Kerteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Buterfield J.S.N., Krzywinski M.I., Skalska U., Smalins D.E.,
RA Scherch A., Schin J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [3]

-1- FUNCTION: Unknown.
-1- SIMILARITY: Belongs to the GAGE family.
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DR EMBL: AJ318894; CAC83015.1; -.
DR EMBL: BC064129; AAH59129.1; -.
DR Genew; HGNC:30930; GAGED5.
DR InterPro: IPR008625; GAGE.
DR Pfam: PF05831; GAGE; 1.
SQ SEQUENCE 108 AA; 12077 MW; E3CD91E5C9241628 CRC64;

Query Match
Best Local Similarity 45.5%; Pred. No. 5.3e-06;
Matches 35; Conservative 10; Mismatches 29; Indels 3; Gaps 1;

QY 29 ESQDEEPTNDIIEPGRE---GPPPEERKVRGDCCEMDLKRSGCSDVYKERT 85
DB 30 EPQDEEPTESQDHTFGKREDDQGAETQVNPVLEADQLSOSKTGDECGSPDVQKTI 89
DB 90 LPKSDEGFKMPEGEGEKP 106

RESULT 5
GCD4 HUMAN STANDARD; PRT; 111 AA.
AC O8KWT9; O8KWT9;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE G antigen family D 4 protein (placenta-specific gene 6 protein) (XAGE-
DE 3 protein) (pp9012).
GN Name=GAGED4; Synonyms=PLAC6, XAGE3;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX NCBI_Taxid=9606;
[1]
RP SEQUENCE FROM N.A.
RX MEDLINE=22021429; PubMed=11992404; DOI=10.1002/jgc.10371;
RA Zenden A.U.W., Van Kraats A.A., Weidie U.H., Rulter D.J.,
RA Van Muljen G.N.P.;
RT "The XAGE family of cancer/testis-associated genes: alignment and
RT expression profile in normal tissues, melanoma lesions and Ewing's
RT sarcoma.";
RL Int. J. Cancer 99:361-369(2002).
RN [2]

SEQUENCE FROM N.A.
RX Zhou X.M., Zhang P.P., Jiang H.Q., Huang Y., Qin W.X., Zhao X.T.,
RA Wan D.P., Gu J.R.;
RT "Novel human cDNA clones with function of inhibiting cancer cell
RT growth.";
RL Submitted (NOV-2000) to the EMBL/Genbank/DBJ databases.
RN [3]

SEQUENCE FROM N.A.
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Klausner R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Alteschul S.F., Collins F.S., Wagner L., Shemen C.M., Schuler G.D.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diachenko D., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Uedlin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loggellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richard S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahy J., Helton E., Kerteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Buterfield J.S.N., Krzywinski M.I., Skalska U., Smalins D.E.,
RA Scherch A., Schin J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human

```

RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 CC -1- FUNCTION: Unknown.
 CC -1- SIMILARITY: Belongs to the GAGE family.
 CC -----
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 CC -----
 CC DR EMBL; AJ318881; CAC8308.1; -;
 CC DR EMBL; AJ318893; CAC83014.1; -;
 CC DR EMBL; AF318372; AAL5879.1; -;
 CC DR EMBL; BC062680; AAH62680.1; -;
 CC DR Genew; HGNC:14618; GAGED4.
 CC DR InterPro; IPR008625; GAGE.
 CC DR Pfam; PF05831; GAGE; 1.
 CC KM Multigene family.
 CC FT CONFLICT 11 11 P -> H (in Ref. 2).
 SQ SEQUENCE 111 AA; 12302 MW; F4A3261B6FACF5B CRC64;
 Query Match 28.8%; Score 156; DB 1; Length 111;
 Best Local Similarity 41.1%; Pred. No. 2,2e-05;
 Matches 37; Conservative 13; Mismatches 34; Indels 6; Gaps 3;
 QY 19 PDVVA-FVARG-ESQOEPPPTNDQIEPQERE--GTPPIERKVEGDCQMDLEKTR 72
 DB 20 PELIGMLEPGEDEPQOEPEPTSRPAPQOEEREDQAAEQVPLEADLELSQSKTG 79
 QY 73 SERGSDGVKEXTPPNPKHAKTKEADGDP 102
 DB 80 GEGCNGPDQCKLTPKSEQFKPEGGDRDP 109

RESULT 6
 GGB1_HUMAN STANDARD; PRT; 146 AA.
 AC 075459; Q9BS87;
 DT 30-MAY-2000 (Rel. 39, Created)
 DT 30-MAY-2000 (Rel. 39, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE G antigen family B.1 protein (Prostate-associated gene protein 1)
 DE (PAGE-1) (GAGE-9) (A15).
 GN Name=GAGEB1; Synonyms=GAGE9, PAGE1;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 OC NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=98316339; PubMed=9651357; DOI=10.1074/jbc.273.28.17618;
 RA Chen M.E., Lin S.-H., Chung L.W.K., Sikes R.A.;
 RT "Isolation and characterization of PAGE-1 and GAGE-7: new genes
 RT expressed in the LNCaP prostate cancer progression model that share
 RT homology with melanoma-associated antigens.";
 RL J. Biol. Chem. 273:17618-17625(1998).
 RL [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Reingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altshul S.F., Zeeberg B., Buetow K.H., Scheffer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stadelton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.D., Usdin T.B., Toehlyuk S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullighy S.J.,
 RA Bosak S.A., McMan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hultey S.W.,

RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahy J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butlerfield Y.S.N., Krzywinski M.I., Skalska U., Smalins D.E.,
 RA Scherch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 CC -1- FUNCTION: Unknown.
 CC -1- TISSUE SPECIFICITY: Isolated from prostate cancer cell lines;
 CC expression associated with progression to androgen insensitive
 CC phenotype. Expressed in normal testis and at lower level in normal
 CC placenta.
 CC -----
 CC -1- SIMILARITY: Belongs to the GAGE family.
 CC -----
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 CC -----
 CC DR EMBL; AF058989; AAC25990.1; -;
 CC DR EMBL; BC004861; AAH04861.1; -;
 CC DR Genew; HGNC:4107; GAGEB1.
 CC DR H-InvDB; HIX0016803; -;
 CC DR MIM; 300288; -;
 CC DR GO; GO:0006968; P:cellular defense response; TAS.
 CC DR InterPro; IPR008625; GAGE.
 CC DR Pfam; PF05831; GAGE; 1.
 CC KM Multigene family.
 CC FT CONFLICT 75 75 P -> L (in Ref. 2).
 SQ SEQUENCE 146 AA; 16134 MW; 91ABA1E3B49B0CA2 CRC64;
 Query Match 24.6%; Score 133; DB 1; Length 146;
 Best Local Similarity 33.6%; Pred. No. 0.0021;
 Matches 38; Conservative 13; Mismatches 40; Indels 22; Gaps 3;
 QY 7 SRSRGDQGEAPDVVAFVARGESQOEPPPTNDQI-----EPG-----OER 48
 DB 35 TQSQSTPAERBEDGASAGOC---QEPEADSGELVQPKTGCEGDDPDKVCLRIIEE 90
 QY 49 ECTPIERKVEGDCQEMDLKTRSERGSDGVKEXTPPNPKHAKTKEADGQ 101
 DB 91 QMKLPABGPPEPADSQEVHPKTCGERGDPVQELGPNPEEVKTPPEDEGQ 143

RESULT 7
 GGD3_HUMAN STANDARD; PRT; 111 AA.
 AC Q96GT9;
 DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE G antigen family D.3 protein (XAGE-2 protein).
 DE Name=GAGED3; Synonyms=XAGE2;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 OC NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=99211468; PubMed=10197611;
 RA Britkman U., Vasmatzis G., Lee B., Pastan I.;
 RT "Novel genes in the PAGE and GAGE family of tumor antigens found by
 RT homology walking in the dbEST database.";
 RL Cancer Res. 59:1445-1448(1999).
 RL [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=22021429; PubMed=11992404; DOI=10.1002/jc.10371;


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RL. Cancer Res. 59:3157-3165(1999).
RN [2]
RN SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Scapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Schetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Pange C.,
RA Raha S.S., Loughellano N.A., Peters G.J., Abramson R.D., Mallary S.J.,
RA Bosak S.A., Mcwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Morley K.C., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Whiting J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickinson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalek U., Smallos D.E.,
RA Scherch A., Schein J.E., Jones S.J.M., Marra M.A.,
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences."
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC -1- TISSUE SPECIFICITY: Not expressed in normal tissues, except in
CC testis, but expressed by a large proportion of tumors of various
CC histological origins.
CC -1- SIMILARITY: Belongs to the GAGE family.
CC -----
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CC -----
DR EMBL: AF055473; AAC33676.1; -
DR EMBL: BC018052; AAH18052.1; -
DR GeneW: HGNC:4106; GAGE8.
DR GO: GO:0006968; P:cellular defense response; TAS.
DR InterPro: IPR008625; GAGE.
DR Pfam: PF05831; GAGE; 1.
DR MultiGene family.
SQ SEQUENCE 116 AA; 12764 MW; DD3052939E66F19A CRC64;

Query Match 23.5%; Score 127; DB 1; Length 116;
Best Local Similarity 35.4%; Pred. No. 0.0051;
Matches 40; Conservative 10; Mismatches 51; Indels 12; Gaps 3;

QY 1 MSARFVRSRRGDCQ-EPADVA-----FVAPGSGQEEPTNDNIDEPQ--PR 48
DB 1 MSWRGSTRPRRRYRVEPEMIGMPRPQFSDVEVPATPEEPTQGRDPAAGEGD 60
QY 49 ECTPPIERKVEGDCQEMDLEKTRSERGSDVKEKTPNPKHAKTKKAGDCQ 101
DB 61 EGASAGQKPRPADSQEGHPQTGCGCEBPGDQEMDPNPNPEVKTPEBGEKQ 113

RESULT 10
GAGE4 HUMAN STANDARD; PRT; 117 AA.
AC 013069;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DR GAGE-4 protein (G antigen 4).
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
NCBI_TaxID=9606;

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RN [1]
RN SEQUENCE FROM N.A.
RP TISSUE=Melanoma;
RC MEDLINE=95378788; PubMed=7544395;
RA van den Eynde B., Peeters O., de Backer O., Gaugler B., Lucas S.,
RA Boon T.;
RT "A new family of genes coding for an antigen recognized by autologous
RT cytolytic T lymphocytes on a human melanoma."
RL J. Exp. Med. 182:689-698(1995).
CC -1- TISSUE SPECIFICITY: Expressed in a variety of tumor tissues but
CC not in normal tissues, except testis.
CC -1- SIMILARITY: Belongs to the GAGE family.
CC -----
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CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL: U19145; AAA82747.1; -
DR GeneW: HGNC:4101; GAGE4.
DR MIM: 604246; -
DR InterPro: IPR008625; GAGE.
DR Pfam: PF05831; GAGE; 1.
DR MultiGene family.
SQ SEQUENCE 117 AA; 12956 MW; 365ED71B2F9DC7AD CRC64;

Query Match 22.7%; Score 123; DB 1; Length 117;
Best Local Similarity 39.2%; Pred. No. 0.011;
Matches 31; Conservative 7; Mismatches 39; Indels 2; Gaps 1;

QY 25 VAPGSGQEEPTNDNIDEPQ--BRETPPIERKVEGDCQEMDLEKTRSERGSDVVK 82
DB 36 VEPATPEEGERPTQGRDPAAGEGDEKASAGQKPRPADSQEGHPQTGCGCEBPGDQ 95
QY 83 ECTPPIERKVEGDCQEMDLEKTRSERGSDVKEKTPNPKHAKTKKAGDCQ 101
DB 96 EMDPNPEVKTPEBGEKQ 114

RESULT 11
GAGE5 HUMAN STANDARD; PRT; 117 AA.
AC 013069;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DR GAGE-5 protein (G antigen 5).
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
NCBI_TaxID=9606;
[1]
RN SEQUENCE FROM N.A.
RP TISSUE=Melanoma;
RC MEDLINE=95378788; PubMed=7544395;
RA van den Eynde B., Peeters O., de Backer O., Gaugler B., Lucas S.,
RA Boon T.;
RT "A new family of genes coding for an antigen recognized by autologous
RT cytolytic T lymphocytes on a human melanoma."
RL J. Exp. Med. 182:689-698(1995).
[2]
RN SEQUENCE FROM N.A.
RP TISSUE=Liver;
RC MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

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CC EMBL: U19147; AAA82749.1; -.
DR Genew; HGNC:4103; GAGE6.
DR MIM; 604248; -.
DR InterPro; IPR008625; GAGE.
DR Pfam; PF05831; GAGE; 1.
KW Multigene family.
SQ SEQUENCE 117 AA; 12892 MW; 234A865E3FCCDD06 CRC64;

Query Match
Best Local Similarity 39.2%; Score 122; DB 1; Length 117;
Matches 31; Conservative 7; Mismatches 39; Indels 2; Gaps 1;

QY 25 VAPGSGQREPTDNDIIPGQ--EREGTPPIERKVEDCEQMDLEKTRSGRGSDYK 82
DB 36 VEPATPEEGEPATQRDPAAAGEGDEGASAGQGPPEADSQEGHPQTGCEDEGDPDQ 95
QY 83 EKTTPNPKAKTKKAGDQ 101
DB 96 EVDPPNPEVKTPEEGEKQ 114

RESULT 14
GAGE2_HUMAN STANDARD; PRT; 116 AA.
ID GAGE2_HUMAN
AC 013066;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DE 05-JUL-2004 (Rel. 44, Last annotation update)
DE GAGE-2 protein (G antigen 2).
GN Name=GAGE2;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
RX MEDLINE=95378788; PubMed=7544395;
RA van den Eynde B., Peeters O., de Backer O., Gaugler B., Lucas S.,
RA Boon T.;
RT "A new family of genes coding for an antigen recognized by autologous
RT cytolytic T lymphocytes on a human melanoma."
RL J. Exp. Med. 182:689-698(1995).
CC - FUNCTION: Antigen, recognized on melanoma by autologous cytolytic
CC - T lymphocytes.
CC - TISSUE SPECIFICITY: Expressed in a variety of tumor tissues but
CC - not in normal tissues, except testis.
CC - SIMILARITY: Belongs to the GAGE family.
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; U19143; AAA82745.1; -.
DR Genew; HGNC:4099; GAGE2.
DR MIM; 604244; -.
DR InterPro; IPR008625; GAGE.
DR Pfam; PF05831; GAGE; 1.
KW Antigen; Multigene family.
SQ SEQUENCE 116 AA; 12786 MW; DD305D5CA29AF19A CRC64;

Query Match
Best Local Similarity 34.5%; Score 120; DB 1; Length 116;
Matches 39; Conservative 10; Mismatches 52; Indels 12; Gaps 3;

QY 1 MSARVRSRGRGQDQ-EAPDVVA-----FVAPGSGQREPTDNDIIPGQ--ER 48

```

```

DB 1 MSWRGRSTYRRPRRYVEPPMIGPMRPEQFSDEVEPATPEEGEPATQRDPAAAGEGD 60
QY 49 EGTPIERKXGCGQEMDLEKTSERSGSDYVEKTPNPKAKTKKAGAGQ 101
DB 61 EGASAGQGPKEAHSQEGHPQTGCEDEGDPGQEMDPNPEVKTPEEGEKQ 113

RESULT 15
Q6NT46 PRELIMINARY; PRT; 116 AA.
ID Q6NT46
AC Q6NT46;
DT 05-JUL-2004 (TRENBLREL. 27, Created)
DT 05-JUL-2004 (TRENBLREL. 27, Last sequence update)
DE 05-JUL-2004 (TRENBLREL. 27, Last annotation update)
DE G antigen 2.
GN Name=GAGE2;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Wax S.I., Wang J., Heide F.,
RA Diachenko L., Maruina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.B.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carrinci P., Prange C.,
RA Raba S.S., Loguellano N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
RA Boeak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Wortley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Heltón E., Kettelman M., Madan A., Rodríguez S., Sanchez A.,
RA Whitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Buterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smalins D.E., Scherch A., Schein J.E.,
RA Jones S.J., Maitra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences."
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=PCR rescued clones;
RA Strausberg R.;
RL Submitted (APR-2004) to the EMBL/Genbank/DBJ databases.
DR EMBL; BC069397; AAH69397.1; -.
DR InterPro; IPR008625; GAGE.
DR Pfam; PF05831; GAGE; 1.
SQ SEQUENCE 116 AA; 12785 MW; DD24495CB688F19A CRC64;

Query Match
Best Local Similarity 34.5%; Score 120; DB 2; Length 116;
Matches 39; Conservative 10; Mismatches 52; Indels 12; Gaps 3;

QY 1 MSARVRSRGRGQDQ-EAPDVVA-----FVAPGSGQREPTDNDIIPGQ--R 48
DB 1 MSWRGRSTYRRPRRYVEPPMIGPMRPEQFSDEVEPATPEEGEPATQRDPAAAGEGD 60
QY 49 EGTPIERKXGCGQEMDLEKTSERSGSDYVEKTPNPKAKTKKAGAGQ 101
DB 61 EGASAGQGPKEAHSQEGHPQTGCEDEGDPGQEMDPNPEVKTPEEGEKQ 113

Search completed: August 24, 2005, 18:43:16
Job time : 61 secs

```


GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: August 24, 2005, 18:24:55 ; Search time 71 Seconds

(Without alignments)
555.628 Million cell updates/sec

Title: US-09-763-393-1

Perfect score: 541
Sequence: 1 MSARVRSRRGRGDCGEARD.....EKTPTPKAKTKKADGCP 102

Scoring table:

BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Database :

A_Geneseq_16Dec04:*
1: geneseq19808:*
2: geneseq19908:*
3: geneseq20008:*
4: geneseq20018:*
5: geneseq20028:*
6: geneseq20038:*
7: geneseq20038:*
8: geneseq20048:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	541	100.0	102	3	AAV83158	Aay83158 PAGE-4 po
2	541	100.0	102	3	AAV52998	Aay52998 Human sec
3	541	100.0	102	5	AAEL14575	Aae14575 Human dif
4	541	100.0	102	7	ADL90096	Adl90096 Prostate
5	541	100.0	102	8	ADL90096	Adl90096 Human pro
6	528	97.6	99	7	ADG42685	Adg42685 Human PAG
7	528	97.6	99	7	ADJ55754	Adj55754 Peptide h
8	528	97.6	99	8	ADM76552	Adm76552 Human NOV
9	419	77.4	89	2	AAV12447	Aay12447 Human 5'
10	391.5	72.4	87	3	AAV83167	Aay83167 PAGE1 pol
11	377.5	69.8	118	5	ADJ33678	Adj33678 Protein o
12	295.5	54.6	109	3	AAV83168	Aay83168 PAGE2 pol
13	295.5	54.6	109	7	ADG42677	Adg42677 Human PAG
14	295.5	54.6	109	7	ADG42667	Adg42667 Human PAG
15	295.5	54.6	109	7	ADJ55845	Adj55845 Peptide h
16	295.5	54.6	109	7	ADJ55746	Adj55746 Peptide h
17	295.5	54.6	109	8	ADM76574	Adm76574 Human NOV
18	295.5	54.6	109	8	ADM76584	Adm76584 Human NOV
19	219	40.5	41	8	ABO57678	Abos7678 Human gen
20	181.5	33.5	111	4	AAE08581	Aae08581 Human NOV
21	181.5	33.5	111	6	ABJ19255	Abj19255 Human can
22	181.5	33.5	111	7	ADG42643	Adg42643 Human pro
23	181.5	33.5	111	7	ADG42676	Adg42676 Human pro
24	181.5	33.5	111	7	ADJ55745	Adj55745 Peptide f
25	181.5	33.5	111	7	ADJ55716	Adj55716 Human NOV

ALIGNMENTS

26	181.5	33.5	111	8	ADH71590	Adh71590 Human pro
27	181.5	33.5	111	8	ADH71588	Adh71588 Human pro
28	181.5	33.5	111	8	ADM78795	Adm78795 Human NOV
29	181.5	33.5	111	8	ADM76550	Adm76550 Human NOV
30	181.5	33.5	111	8	ADM76583	Adm76583 Human NOV
31	176.5	32.6	111	8	ADH71592	Adh71592 Human pro
32	176.5	32.6	111	8	ADH71584	Adh71584 Human pro
33	176	32.5	110	6	ABR48212	AbR48212 Human bla
34	176	32.5	110	6	ABUS6511	Abus6511 Lung can
35	176	32.5	110	6	ABJ19247	Abj19247 Human can
36	168.5	31.1	111	4	AAE08582	Aae08582 Human NOV
37	168.5	31.1	111	4	AAE08593	Aae08593 Protein e
38	168.5	31.1	111	7	ADG42645	Adg42645 Human pro
39	168.5	31.1	111	7	ADG42749	Adg42749 Human Full
40	168.5	31.1	111	7	ADJ55718	Adj55718 Human NOV
41	168.5	31.1	111	8	ADH71580	Adh71580 Human pro
42	168.5	31.1	111	8	ADH71582	Adh71582 Human pro
43	168.5	31.1	111	8	ADH71586	Adh71586 Human pro
44	168.5	31.1	111	8	ADM78823	Adm78823 Human NOV
45	168.5	31.1	111	8	ADM76552	Adm76552 Human NOV

RESULT 1
AAV83158
ID AAY83158 standard; protein; 102 AA.
XX

XX AAY83158;

XX 24-UTL-2000 (first entry)

XX PAGE-4 polypeptide.

XX PAGE-4; MAGE; GAGE; reproduction; testis; prostate; fallopian tube;

XX uterus; placenta; cancer; major histocompatibility complex; MHC; CTL;

XX cytotoxic T lymphocyte; immune response; antibody; drug delivery;

XX Immunconjugate.

XX Homo sapiens.

XX WO200012706-A1.

XX 09-MAR-2000.

XX 31-AUG-1999; 99WO-US020046.

XX 01-SEP-1998; 98US-0098933P.

XX (USSH) US DEPT HEALTH & HUMAN SERVICES.

XX Pastern I, Brinkmann U, Vasmatzis G, Lee B,

XX WPI, 2000-237869/20.

XX N-PSDB; AA293524.

XX Isolated PAGE-4 protein and peptide used for inducing a cytotoxic T

XX lymphocyte response and for raising antibodies which can be used to

XX detect the presence of PAGE-4 in cell samples or body tissues.

XX disclosure; Fig 1; 63pp; English.

XX PAGE-4 is a gene preferentially expressed in normal male and female

XX reproductive tissues e.g. prostate, testis, fallopian tube, uterus and

XX placenta, as well as in prostate cancer, testicular cancer and uterine

XX cancer. This expression pattern makes it a target for diagnosis and for

XX vaccine based therapy of such neoplasms. An isolated PAGE-4 peptide which

XX induces a cytotoxic T lymphocyte response when bound to a major

XX histocompatibility complex (MHC) class I molecule or the isolated PAGE-4

XX protein can be used in immunogenic compositions to raise a cytotoxic T

XX lymphocyte response against cells expressing PAGE-4 including cancer

XX cells of the prostate, uterus and testis. The nucleic acids encoding PAGE

CC -4 or PAGE-4 peptide fragments can also be used in these compositions.
CC Antibodies against PAGE-4 and its peptide fragments can be used in
CC detecting the presence of PAGE-4 and PAGE-4 coding sequences in cell
CC samples or body tissues. The presence of PAGE-4 in tissues which are not
CC related to reproduction can be indicative of the spread of cancerous
CC reproductive tissue. PAGE-4 can also be used to raise antibodies which
CC are then used in the targeting group of immunocongulates comprising
CC toxins used in therapeutic applications. This has applications for drug
CC delivery systems

CC Sequence 102 AA;

Query Match 100.0%; Score 541; DB 3; Length 102;
Best Local Similarity 100.0%; Pred. No. 1,7e-49;
Matches 102; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MSARVRSRGRGQGEAPDVVAFVAPGESQEEPTDNDIEPQEREGTPPIERKYE 60
DB 1 MSARVRSRGRGQGEAPDVVAFVAPGESQEEPTDNDIEPQEREGTPPIERKYE 60
QY 61 GDCQEMDEKTRSERGSDVKEKTPPNPKAKTKKAGDGP 102
DB 61 GDCQEMDEKTRSERGSDVKEKTPPNPKAKTKKAGDGP 102

RESULT 2

AAV52998
ID AAV52998 standard; protein; 102 AA.

AC AAV52998;

DT 29-FEB-2000 (first entry)

DE Human secreted protein clone hm365_53 protein sequence SEQ ID NO:2.

XX Human; secreted protein; nutritional; cytokine; cell proliferation;
XX differentiation; immune stimulating; vaccine; suppression;
XX haematopoiesis regulation; tissue growth; activin; inhibin; chemotactic;
XX chemokine; haemostatic; thrombolytic; receptor; ligand;
XX anti-inflammatory; cadherin; tumour invasion suppressor;
XX tumour inhibition; gene therapy.

XX Homo sapiens;

XX MO9957132-A1;

PD 11-NOV-1999.

PF 07-MAY-1999; 99WO-US009970.

PR 07-MAY-1998; 98US-0084564P.

PR 02-JUL-1998; 98US-0087645P.

PR 22-JUL-1998; 98US-0093712P.

PR 31-JUL-1998; 98US-0094935P.

PR 10-AUG-1998; 98US-0095880P.

PR 11-AUG-1998; 98US-0096068P.

PR 06-MAY-1999; 99US-00306111.

XX (GENE-) GENETICS INST INC.

XX Jacobo K, McCoy JM, Lavallie ER, Collins-Racie LA, Evans C;

XX Merberg D, Treacy M, Agostino MJ, Steininger RJ, Bowman MR;

XX Dibiase-Smith E, Widom A;

XX WPI; 2000-052937/04.

XX N-PSDB; AA233316.

XX New polynucleotides encoding secreted human proteins, derived from adult

XX placenta, adult retina, fetal brain, fetal.

CC isolated from adult placenta, adult retina, foetal brain, foetal kidney,
CC adult blood, adult brain, adult thyroid, adult bladder, adult neural
CC tissue, adult testes, and adult lymph node CDNA libraries. The human
CC secreted proteins, and the polynucleotides encoding them, are predicted
CC to have biological activities which would make them suitable for
CC treating, preventing or ameliorating medical conditions in humans and
CC animals. Suggested activities include nutritional activity, cytokine and
CC cell proliferation/differentiation activity, immune stimulating (e.g. as
CC vaccines) or suppressing activity, haematopoiesis regulating activity,
CC tissue growth activity, activin/inhibin activity, haemostatic and thrombolytic activity,
CC chemotactic/chemokine activity, anti-inflammatory activity, cadherin/tumour
CC receptor/ligand activity, and tumour inhibition activity. The
CC polynucleotides are also stated to be useful for gene therapy. AA233316
CC to AA233373 encode human secreted proteins, and AAV52998 to AAV53060
CC represent human secreted proteins, given in the present invention

CC Sequence 102 AA;

Query Match 100.0%; Score 541; DB 3; Length 102;
Best Local Similarity 100.0%; Pred. No. 1,7e-49;
Matches 102; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MSARVRSRGRGQGEAPDVVAFVAPGESQEEPTDNDIEPQEREGTPPIERKYE 60
DB 1 MSARVRSRGRGQGEAPDVVAFVAPGESQEEPTDNDIEPQEREGTPPIERKYE 60
QY 61 GDCQEMDEKTRSERGSDVKEKTPPNPKAKTKKAGDGP 102
DB 61 GDCQEMDEKTRSERGSDVKEKTPPNPKAKTKKAGDGP 102

RESULT 3

AAE14575
ID AAE14575 standard; protein; 102 AA.

AC AAE14575;

DT 21-MAY-2002 (first entry)

DE Human differentially expressed BPH protein JT463726.

XX JT463726; prostate; benign prostatic hyperplasia; BPH; human; GAGB-1like;
XX PAGE-1like.

XX Homo sapiens.

XX WO200210338-A2.

PD 07-FEB-2002.

PR 31-JUL-2001; 2001WO-US023861.

PR 31-JUL-2000; 2000US-0222039P.

PR (GENE-) GENE LOGIC INC.

PI Munger WE, Kulkarni P, Getzenberg RH;

XX WPI; 2002-206184/26.

XX N-PSDB; AAD24228.

XX Methods for diagnosing prostatic diseases in a patient, e.g. benign

XX prostatic hyperplasia, or screening compounds for treating these

XX diseases, comprises assaying for the expression of JT463726 protein or

XX nucleic acid in a sample.

XX Claim 17; Page 48; 48pp; English.

XX The invention relates to a method of diagnosing prostatic disease in a

XX patient, which comprises assaying for the expression of JT463726 protein

XX or nucleic acid in a sample. The differential expression of the protein

XX or nucleic acid compared to normal prostate tissue is an indication of

CC prostatic disease. The method is useful for diagnosing prostatic
CC diseases, particularly benign prostatic hyperplasia (BPH). The method is
CC also useful for screening agents useful in treating BPH, isolating
CC binding partners that bind to the proteins and for screening novel
CC therapeutic agents that regulate prostate function. The genes and proteins are
CC useful as diagnostic agents or markers for detecting BPH or the
CC progression of BPH in a subject. They can also serve as a target for
CC agents that modulate gene expression or activity. The present sequence is
CC human UT463726 protein which is differentially expressed in BPH tissue.
CC UT463726 shows homology to GAGE/PAGE-like proteins
CC
XX
SQ Sequence 102 AA;

Query Match 100.0%; Score 541; DB 5; Length 102;
Best Local Similarity 100.0%; Pred. No. 1.7e-49;
Matches 102; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MSARVSRSRGRGDGEAPDVVAFVAPGSESQEPPPTNODIEPQEREGTPIERKVE 60
DB 1 MSARVSRSRGRGDGEAPDVVAFVAPGSESQEPPPTNODIEPQEREGTPIERKVE 60
61 GDCQEMDLEKTRSERGSDGVKKEKTPPNPKHAKTKKAGDGP 102
DB 61 GDCQEMDLEKTRSERGSDGVKKEKTPPNPKHAKTKKAGDGP 102

RESULT 4
ADL90096
ID ADL90096 standard; protein; 102 AA.
XX
AC ADL90096;
XX
DT 04-JUN-2004 (first entry)
XX
DE Prostate cancer marker protein.
XX
KM Prostate; cancer; cytostatic; gene therapy; marker.
XX
OS Homo sapiens.
XX
PN WO2003009814-A2.
XX
PD 06-FEB-2003.
XX
PF 25-JUL-2002; 2002WO-US023913.
XX
PR 25-JUL-2001; 2001US-0307982P.
XX
PR 22-AUG-2001; 2001US-0314356P.
XX
PR 25-SEP-2001; 2001US-0325020P.
XX
PR 12-DEC-2001; 2001US-0341746P.
XX
PR 05-MAR-2002; 2002US-0362158P.
XX
PA (MILL-) MILLENNIUM PHARM INC.
XX
PI Schlegel R, Monahan JE, Endege WO, Gannavarapu M, Gorbacheva B;
PI Hoerhn S, Kametkar S, Money AM, Glatt K, Zhao X, Anderson D;
XX
XX WPI; 2003-248033/24.
XX
XX New nucleic acid molecule, useful for diagnosing or treating prostate
XX cancer.
XX
XX Disclosure; SEQ ID NO 186; 99pp; English.
XX
XX The invention relates to newly discovered cancer markers associated with
XX the cancerous state of prostate cells. Also disclosed is a method of
XX assessing whether a patient is afflicted with prostate cancer. The method
XX of the invention involves assessing whether a patient is afflicted with
XX prostate cancer by comparing the level of expression of a marker in a
XX patient sample and the normal level of expression of the marker in a
XX control non-prostate cancer sample, where a significant increase in the
XX level of expression of the marker in the patient sample and the normal
XX level indicates that the patient is afflicted with prostate cancer.

CC Nucleic acids of the invention are useful for diagnosing or treating
CC prostate cancer, and may be useful in gene therapy. Sequences given in
CC ADL90096-ADL90096 represent marker cDNA and proteins. Note: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 102 AA;

Query Match 100.0%; Score 541; DB 7; Length 102;
Best Local Similarity 100.0%; Pred. No. 1.7e-49;
Matches 102; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MSARVSRSRGRGDGEAPDVVAFVAPGSESQEPPPTNODIEPQEREGTPIERKVE 60
DB 1 MSARVSRSRGRGDGEAPDVVAFVAPGSESQEPPPTNODIEPQEREGTPIERKVE 60
61 GDCQEMDLEKTRSERGSDGVKKEKTPPNPKHAKTKKAGDGP 102
DB 61 GDCQEMDLEKTRSERGSDGVKKEKTPPNPKHAKTKKAGDGP 102

RESULT 5
ADL90096
ID ADL90096 standard; protein; 102 AA.
XX
AC ADL90096;
XX
DT 17-JUN-2004 (first entry)
XX
DE Human prostate associated gene protein 4.
XX
KM Immune response; immunoglobulin; Ig; human;
XX
KM prostate associated gene protein 4.
XX
OS Homo sapiens.
XX
PN WO2004027049-A2.
XX
PD 01-APR-2004.
XX
PF 18-SEP-2003; 2003WO-US030188.
XX
PR 20-SEP-2002; 2002US-0412219P.
XX
PR 14-MAR-2003; 2003WO-US007995.
XX
XX (ASTR-) ASTRAL INC.
XX
PI Bot A, Wang L, Smith D, Phillips B;
XX
XX WPI; 2004-295415/27.
XX
XX Generating an immune response to an antigen, useful for generating
XX desired T cell responses comprises administering an immunoglobulin having
XX one peptide epitope of the antigen attached to the immunoglobulin.
XX
XX Disclosure; Fig 1L; 154pp; English.
XX
XX The present invention relates to a method for generating an immune
XX response to an antigen in a patient. The method comprises administering
XX to the patient an immunoglobulin (Ig) or its portion where the Ig has at
XX least one peptide epitope of the antigen attached to the Ig or its
XX portion and administering the immunoglobulin or its portion in
XX conjunction with a RNA segment. The present sequence is an antigen
XX sequence, used to illustrate the invention.
XX
SQ Sequence 102 AA;

Query Match 100.0%; Score 541; DB 8; Length 102;
Best Local Similarity 100.0%; Pred. No. 1.7e-49;
Matches 102; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MSARVSRSRGRGDGEAPDVVAFVAPGSESQEPPPTNODIEPQEREGTPIERKVE 60

```

Db      1 MSARVSRSRGRGDGEAPDVVAFPVAPGESQOEPPPTDNDIEPQEREGTPPIERKVE 60
QY      61 GDCQEMDLEKTRSERGSDVYKKTPTPNPKAKTKRAGDGP 102
Db      61 GDCQEMDLEKTRSERGSDVYKKTPTPNPKAKTKRAGDGP 102

RESULT 6
ADG42685
ID      ADG42685 standard; protein; 99 AA.
XX
AC      ADG42685;
XX
DT      26-FEB-2004 (first entry)
DE      Human PAGE-2 protein #4.
XX
XX      Human; NOVX; GAGE-like protein; interferon; GPCR; mast cell protease;
KM      hepatocyte nuclear factor; cancer; immune disorder; hepatic disorder;
KM      trauma; HIV; Parkinson's disease; Alzheimer's disease.
OS      Homo sapiens,
XX
PN      US2003202971-A1.
XX
PD      30-OCT-2003.
XX
PF      06-MAY-2002; 2002US-00139854.
XX
PR      15-FEB-2000; 2000US-0182723P.
PR      15-FEB-2000; 2000US-0182724P.
PR      15-FEB-2000; 2000US-0182733P.
PR      22-FEB-2000; 2000US-0183866P.
PR      23-FEB-2000; 2000US-0184275P.
PR      23-FEB-2000; 2000US-0184482P.
PR      23-FEB-2000; 2000US-0184497P.
PR      24-FEB-2000; 2000US-0184744P.
PR      13-APR-2000; 2000US-0197083P.
PR      10-AUG-2000; 2000US-0224157P.
PR      18-SEP-2000; 2000US-0233405P.
PR      27-SEP-2000; 2000US-0236060P.
PR      02-JAN-2001; 2001US-0259414P.
PR      18-JAN-2001; 2001US-0262454P.
PR      14-FEB-2001; 2001US-00783429.
XX
PA      (MAUJ/) MAJUMDER K.
XX
PI      Majumder K;
XX
DR      WPI; 2003-900615/82.
XX
PT      Novel isolated NOVX polypeptide useful for treating cancer, immune
PT      disorders, hepatic disorders, AIDS, Parkinson's disease.
XX
PS      Disclosure; SEQ ID NO 46; 155pp; English.
XX
XX      The invention relates to an isolated NOVX polypeptide comprising mature
CC      form of protein having a fully defined sequence ADG42655ADG42653, NOV8
CC      and NOV10, a variant of mature form of the protein, where any amino acid
CC      in mature protein changed to a different amino acid, provided that not
CC      more than 50% of amino acid in sequence of mature protein are so changed,
CC      or its fragment. Also included are an isolated nucleic acid molecule (NA)
CC      encoding NOVX (or portion or variant), a vector comprising NOVX NA, a
CC      cell comprising the vector, an anti-NOVX antibody, determining (M1) the
CC      presence or amount of NOVX NA in a sample, a pharmaceutical composition
CC      (comprising NOVX, NOVX NA or the antibody and carrier) and a kit
CC      comprising in one or more containers. NOV8 and NOV10 are 2 of 13
CC      disclosed NOVX proteins showing homology to GAGE (G-antigen) proteins
CC      (NOV1-4), interferon (NOV5 and 6), G protein-coupled receptors (NOV7),
CC      Mast cell proteases (NOV8 and NOV10-13) and hepatocyte nuclear factors
CC      (NOV9). The antibody is useful for determining the presence or amount of
CC      NOVX in a sample. NOVX is useful for identifying an agent that binds to

```

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CC      NOVX and for identifying a potential therapeutic agent for use in
CC      treatment of a pathology, where the pathology use related to aberrant
CC      expression or aberrant physiological interaction of NOVX. NOVX, NOVX NA
CC      or the antibody is useful for treating or preventing a pathology
CC      associated with NOVX e.g. cancer, immune disorder, hepatic disorder,
CC      trauma, HIV, Parkinson's disease, and Alzheimer's disease. The present
CC      sequence represents a protein showing sequence similarity to a NOVX
CC      protein (or fragment).
XX
SQ      Sequence 99 AA;
XX
Query Match      97.6%; Score 528; DB 7; Length 99;
Best Local Similarity 100.0%; Pred. No. 4e-48;
Matches 99; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      4 RYRSRSRGRGDGEAPDVVAFPVAPGESQOEPPPTDNDIEPQEREGTPPIERKVEGDC 63
Db      1 RYRSRSRGRGDGEAPDVVAFPVAPGESQOEPPPTDNDIEPQEREGTPPIERKVEGDC 60
QY      64 QEMDLEKTRSERGSDVYKKTPTPNPKAKTKRAGDGP 102
Db      61 QEMDLEKTRSERGSDVYKKTPTPNPKAKTKRAGDGP 99

RESULT 7
ADJ55754
ID      ADJ55754 standard; peptide; 99 AA.
XX
AC      ADJ55754;
XX
DT      06-MAY-2004 (first entry)
DE      Peptide homologous to a fragment of a human NOV3 protein SegID 46.
XX
XX      human; NOVX; neurogenesis; cell differentiation; cell motility;
KM      cell proliferation; haematopoiesis; angiogenesis; proliferative disorder;
KM      cancer; mastocytosis; immune disorder; hepatic disorder; cirrhosis;
KM      viral infection; AIDS; hepatitis; neuro-olfactory; trauma; surgery;
KM      neoplastic; adenocarcinoma; lymphoma; asthma; Crohn's disease;
KM      multiple sclerosis; Alzbright hereditary osteodystrophy; cystostatic;
KM      immunosuppressive; hepatotropic; virucide; anti-HIV; antiinflammatory;
KM      vulnery; antiaesthetic; neuroprotective.
XX
OS      Homo sapiens.
XX
PN      US2003199465-A1.
XX
PD      23-OCT-2003.
XX
PF      22-APR-2002; 2002US-00131409.
XX
PR      15-FEB-2000; 2000US-0182723P.
PR      15-FEB-2000; 2000US-0182724P.
PR      15-FEB-2000; 2000US-0182733P.
PR      22-FEB-2000; 2000US-0183896P.
PR      23-FEB-2000; 2000US-0184275P.
PR      23-FEB-2000; 2000US-0184482P.
PR      23-FEB-2000; 2000US-0184497P.
PR      24-FEB-2000; 2000US-0184744P.
PR      13-APR-2000; 2000US-0197083P.
PR      10-AUG-2000; 2000US-0215855P.
PR      10-AUG-2000; 2000US-0224157P.
PR      18-SEP-2000; 2000US-0233405P.
PR      27-SEP-2000; 2000US-0236060P.
PR      02-JAN-2001; 2001US-0259414P.
PR      18-JAN-2001; 2001US-0262454P.
PR      14-FEB-2001; 2001US-00783429.
PR      03-JUL-2001; 2001US-00898953.
XX
PA      (MALY/) MALYANKAR U M.
XX
PI      (TCHER/) TCHERNEV V T.
XX
PD      (PADIG/) PADIGARU M.
XX
PF      (TAUP/) TAUPIER R J.

```

PA (SPYT/) SPYTEK K A.
 PA (GNOX/) GNO X.
 PA (SPAD/) SPADERNA S K.
 PA (BOLD/) BOLDOG F L.
 PA (GERL/) GERLACH V.
 PA (ELLER/) ELLERMAN K.
 PA (MACD/) MACDOUGALL J R.
 PA (SMIT/) SMITHSON G.
 XX
 XX Maljankar UM, Tchernenov VT, Padigaru M, Taupier RJ, Spytek KA;
 PI Guo X, Spaderma SK, Boldog FL, Gerlach V, Ellerman K, Macdougall JR;
 PI Smithson G;
 XX
 XX WPI: 2003-900202/82.
 DR
 PT New polypeptides useful for treating e.g. cancer and mastocytosis, immune
 PT disorders, hepatic disorders, viral infections, asthma.
 XX
 PS Disclosure; SEQ ID NO 46; 86pp; English.
 XX
 CC This invention relates to a novel nucleic acids, and encoded polypeptides
 CC thereof, which have properties related to the stimulation of biochemical
 CC or physiological responses in a cell, tissue, organ or organism.
 CC Specifically, it refers to the use of biologically active fragments for
 CC diagnostic and prognostic assays and furthermore in the treatment of
 CC diverse pathological conditions. The present invention describes novel
 CC human NOVX proteins, as well as methods to identify small molecules that
 CC can be used to modulate or inhibit various processes including
 CC neurogenesis, cell differentiation, cell motility, cell proliferation,
 CC hemopoiesis and angiogenesis. Furthermore, they can be used in the
 CC manufacture of medicaments to treat proliferative disorders (e.g. cancer
 CC and mastocytosis), immune disorders, hepatic disorders (e.g. cancer
 CC viral infections (e.g. AIDS and hepatitis), disorders of the neuro-
 CC olfactory system (e.g. trizuma, surgery and/or neoplastic disorders),
 CC adenocarcinoma, lymphoma, asthma, Crohn's disease, multiple sclerosis and
 CC also for treating Alzhrigh hereditary osteodystrophy. Accordingly, they
 CC exhibit cytostatic, immunosuppressive, hepatotropic, virucide, anti-HIV,
 CC antiinflammatory, vulnerary, antiaesthetic and neuroprotective
 CC activities. This peptide is homologous to a fragment of a human NOVX
 CC protein of the invention.
 CC
 XX
 XX Sequence 99 AA:
 SO
 Query Match 97.6%; Score 528; DB 7; Length 99;
 Best Local Similarity 100.0%; Pred. No. 4e-48;
 Matches 99; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 4 RVSRSRGRGDGQADPVVAFVAPGSGQSEPPPTNDIPEQERGTPIERKRYEGDC 63
 DB 1 RVSRSRGRGDGQADPVVAFVAPGSGQSEPPPTNDIPEQERGTPIERKRYEGDC 60
 QY 64 QEMDLEKTRSERGSDGVKKEKTPPNPKAKTKKAGDGP 102
 DB 61 QEMDLEKTRSERGSDGVKKEKTPPNPKAKTKKAGDGP 99
 RESULT 8
 ADM76592
 ID ADM76592 standard; protein; 99 AA.
 XX
 AC ADM76592;
 XX
 DT 03-JUN-2004 (first entry)
 DT
 XX
 DE Human NOV3 protein-related protein fragment SegID46.
 XX
 KM NOVX; cytostatic; immunosuppressive; virucide; anti-HIV; hepatotropic;
 KM antiinflammatory; neuroprotective; nootropic; antiparkinsonian;
 KM gene therapy; vaccine; NOVX-associated disorder; cancer; immune disorder;
 KM viral infection; AIDS; hepatitis; neurological disorder;
 KM Alzheimer's disease; Parkinson's disease; olfactory disorder;
 KM chromosome mapping; tissue typing; NOV3; human.
 XX

OS Homo sapiens.
 XX
 PN WO2004009634-A2.
 XX
 PD 29-JAN-2004.
 XX
 PF 04-OCT-2001; 2001MO-US031284.
 XX
 XX 04-OCT-2000; 2000US-0237862P.
 PR 02-JAN-2001; 2001US-0259414P.
 PR 18-JAN-2001; 2001US-0262454P.
 PR 14-FEB-2001; 2001US-00783429.
 PR 03-JUL-2001; 2001US-00898953.
 PR 03-OCT-2001; 2001US-00970607.
 XX
 XX (CURA-) CURAGEN CORP.
 PA
 XX
 PI Gerlach VL, Ellerman K, Macdougall JR, Smithson G, Shinkets RA;
 PI Rastelli L, Herrmann J;
 XX
 XX WPI: 2004-143267/14.
 DR
 XX
 PT New NOVX polypeptides and nucleic acid molecules useful for diagnosing,
 PT preventing or treating NOVX-associated disorders (e.g. cancer, AIDS or
 PT Alzheimer's disease), and in chromosome mapping, tissue typing or
 PT pharmacogenomics.
 XX
 XX Disclosure; SEQ ID NO 46; 173pp; English.
 PS
 XX
 CC This invention relates to novel NOVX polypeptides and the DNA sequences
 CC which encode them. The invention may be useful for the development of
 CC compounds with a cytostatic, immunosuppressive, virucide, anti-HIV,
 CC hepatotropic, antiinflammatory, neuroprotective, nootropic or
 CC antiparkinsonian activity. In addition, the disclosed sequences may be
 CC useful for gene therapy or development of a vaccine. The NOVX
 CC polypeptide, nucleic acid or antibody is useful in the manufacture of a
 CC medicament for treating a syndrome associated with a human disease. These
 CC are used in diagnosing, treating or preventing NOVX-associated disorders
 CC such as cancer, immune disorders, viral infections (for example AIDS or
 CC hepatitis), neurological disorders (for example Alzheimer's disease or
 CC Parkinson's disease) or olfactory disorders. The nucleic acids are
 CC further used as hybridisation probes, in chromosome mapping, tissue
 CC typing, preventive medicine, and pharmacogenomics. The present sequence
 CC is that of a human protein fragment which was used to demonstrate
 CC homology between the NOVX proteins of the invention and other human
 CC proteins.
 CC
 XX
 XX Sequence 99 AA:
 SO
 Query Match 97.6%; Score 528; DB 8; Length 99;
 Best Local Similarity 100.0%; Pred. No. 4e-48;
 Matches 99; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 4 RVSRSRGRGDGQADPVVAFVAPGSGQSEPPPTNDIPEQERGTPIERKRYEGDC 63
 DB 1 RVSRSRGRGDGQADPVVAFVAPGSGQSEPPPTNDIPEQERGTPIERKRYEGDC 60
 QY 64 QEMDLEKTRSERGSDGVKKEKTPPNPKAKTKKAGDGP 102
 DB 61 QEMDLEKTRSERGSDGVKKEKTPPNPKAKTKKAGDGP 99
 RESULT 9
 AAY12447
 ID AAY12447 standard; protein; 89 AA.
 XX
 AC AAY12447;
 XX
 DT 17-JUN-1999 (first entry)
 DT
 XX
 DE Human 5' EST secreted protein SEQ ID NO:478.
 XX
 KM Human; secreted protein; EST; expressed sequence tag; diagnosis;
 XX

KW forensic; gene therapy; chromosome mapping; signal peptide;
KW upstream regulatory sequences; cytokine activity; cell proliferation;
KW differentiation; haematopoiesis regulation; tissue growth regulation;
KW reproductive hormone regulation; chemotactic; chemokinetic; haemostatic;
KW thrombolytic; anti-inflammatory; tumour inhibition.
XX
OS Homo sapiens.
XX
PN MO9906548-A2.
XX
PD 11-FEB-1999.
XX
PF 31-JUL-1998; 98WO-IB001222.
XX
PR 01-AUG-1997; 97US-00905135.
XX
PA (BEST) GENSET.
XX
PI Dumas Mline Edwards J, Duclert A, Lacroix B;
XX
DR WPI; 1999-153778/13.
XX
DR N-PSDB; AAX41280.
XX
PT New nucleic acids encoding human secreted proteins - obtained from cDNA
XX libraries prepared from e.g. liver, ovary, brain, prostate, kidney, lung,
XX umbilical cord, placenta and colon tissue.
XX
PS Claim 27; Page 778; 824pp; English.
XX
CC AAX41094 to AAX41347 represent 5' expressed sequence tags (ESTs) for
XX human secreted proteins, and encode the proteins given in AAY12261 to
XX AAY12514, respectively. The proteins given represent the signal peptide
XX and an N-terminal fragment of a secreted protein. The nucleic acid
XX sequences can be used for producing secreted human gene products. They
XX can also be used to develop products for diagnosis and therapy. The
XX proteins obtained may have cytokine activity, cell
XX proliferation/differentiation activity, haematopoiesis regulating
XX activity, tissue growth regulating activity, reproductive hormone
XX regulating activity, chemotactic/chemokinetic activity, haemostatic and
XX thrombolytic activity, receptor/ligand activity, anti-inflammatory
XX activity, tumour inhibition activity or other activities. The products
XX can be used in forensic, gene therapy and chromosome mapping procedures.
XX The sequences can also be used for obtaining corresponding promoter
XX sequences. The nucleic acids encoding the signal peptide can be used for
XX directing extracellular secretion of a polypeptide or the insertion of a
XX polypeptide into a membrane, or importing a polypeptide into a cell
XX
SQ Sequence 89 AA;
XX
Query Match 77.4%; Score 419; DB 2; Length 89;
Best Local Similarity 98.8%; Pred. No. 1.3e-36;
Matches 79; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 21 VVAFAVAGSGQEEPTDNDIEPQERGTPIERKVEGDCQEMDLEKTSERDGS 80
DB 8 VVAFVAPGSGQEEPTDNDIEPQERGTPIERKVEGDCQEMDLEKTSERDGS 67
QY 81 VKEKTPPNKAKTKKAGDG 100
DB 68 VKEKTPPNKAKTKKAGDG 87
XX
RESULT 10
AAY83167
ID AAY83167 standard; protein; 87 AA.
XX
AC AAY83167;
XX
DT 24-JUL-2000 (first entry)
XX
DE PAGE1 polypeptide.
XX
XX PAGE-4; MAGB; GAGE; reproduction; testis; prostate; fallopian tube;
KW

KW uterus; placenta; cancer; major histocompatibility complex; MHC; CTL;
KW cytotoxic T lymphocyte; immune response; antibody; drug delivery;
KW immunconjugate.
XX
OS Homo sapiens.
XX
PN WO200012706-A1.
XX
PD 09-MAR-2000.
XX
PF 31-AUG-1999; 99WO-US020046.
XX
PR 01-SEP-1998; 98US-0098993P.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Pastan I, Brinkmann U, Vasmatazis G, Lee B;
XX
DR WPI; 2000-237869/20.
XX
PT Isolated PAGE-4 protein and peptide used for inducing a cytotoxic T
XX lymphocyte response and for raising antibodies which can be used to
XX detect the presence of PAGE-4 in cell samples or body tissues.
XX
PS Disclosure; Fig 1b; 63pp; English.
XX
CC PAGE-4 is a gene preferentially expressed in normal male and female
XX reproductive tissues e.g. prostate, testis, fallopian tube, uterus and
XX placenta, as well as in prostate cancer, testicular cancer and uterine
XX cancer. This expression pattern makes it a target for diagnosis and for
XX vaccine based therapy of such neoplasms. An isolated PAGE-4 peptide which
XX induces a cytotoxic T lymphocyte response when bound to a major
XX histocompatibility complex (MHC) class I molecule or the isolated PAGE-4
XX protein can be used in immunogenic compositions to raise a cytotoxic T
XX lymphocyte response against cells expressing PAGE-4 including cancer
XX cells of the prostate, uterus and testis. The nucleic acids encoding PAGE
XX -4 or PAGE-4 peptide fragments can also be used in these compositions.
XX Antibodies against PAGE-4 and its peptide fragments can be used in
XX detecting the presence of PAGE-4 and PAGE-4 coding sequences in cell
XX samples or body tissues. The presence of PAGE-4 in tissues which are not
XX related to reproduction can be indicative of the spread of cancerous
XX reproductive tissue. PAGE-4 can also be used to raise antibodies which
XX are then used as the targeting group of immunconjugates comprising
XX toxins used in therapeutic applications. This has applications for drug
XX delivery systems. This sequence is of the PAGE1 polypeptide which shares
XX sequence similarity with PAGE-4
XX
SQ Sequence 87 AA;
XX
Query Match 72.4%; Score 391.5; DB 3; Length 87;
Best Local Similarity 76.9%; Pred. No. 1e-33;
Matches 80; Conservative 3; Mismatches 2; Indels 19; Gaps 2;
QY 1 MSARVRSRSRGGQEAADVAVFAPGSGQEEPTDND--DIEPQERGTPIERK 58
DB 1 MSARVRSRSRGGQEAADVAVFAPGSGQEEPTDNDQPDMEAFQ----- 48
QY 59 VEGDCQEMDLEKTSERDGSVDYKETPPNPKAKTKKAGCGOP 102
DB 49 -----QELDLKTSERDGSVDYKETPPNPKAKTKKAGDGOP 87
XX
RESULT 11
ADJ33678
ID ADJ33678 standard; protein; 118 AA.
XX
AC ADJ33678;
XX
DT 22-APR-2004 (first entry)
XX
DE Protein of the invention SEQ ID NO:655.
XX
XX cytostatic; immunomodulator; antimicrobial; anti-inflammatory; vulnery;

KM neuroprotective; gene therapy; cancer; bacterial infection;
 KM fungal infection; autoimmune disorder; inflammation; Parkinson's disease;
 KM allergy; wound healing; human.
 OS Homo sapiens.
 XX
 XX
 XX
 FH Key Location/Qualifiers
 FT Misc-difference 42 /note= "Encoded by stop codon"
 FT Misc-difference 103 /note= "Encoded by stop codon"
 FT Misc-difference 103 /note= "Encoded by stop codon"
 XX
 XX
 PN W0200187917-A1.
 XX
 XX 22-NOV-2001.
 PD
 XX
 XX 16-MAY-2001; 2001MO-US014826.
 PP
 XX 18-MAY-2000; 2000US-00577408.
 PR 22-SEP-2000; 2000US-00667298.
 PR 24-OCT-2000; 2000US-00695781.
 PR 17-NOV-2000; 2000US-00715869.
 PR 01-FEB-2001; 2001US-00775330.
 XX
 XX (HYSE-) HYSEQ INC.
 XX
 XX Tang YT, Auandl V, Zhou P, Xue AJ, Ren F, Zhang J, Wang J,
 PI Yang Y, Zhao Q, Goodrich RW, Liu C, Drmanac RT, Wehrman T, Chen R;
 XX
 XX WPI; 2002-062370/08.
 XX
 XX
 PT New polynucleotides for treating cancers, infection, autoimmune
 PT disorders, inflammations, Parkinson's disease, allergies or wounds, and
 PT for diagnostic or research methods.
 XX
 PS Disclosure; SEQ ID NO 655; 310pp; English.
 XX
 XX The invention relates to a novel isolated polynucleotide, which has a
 CC nucleotide sequence comprising one of 432 sequences described in
 CC specification (but not fully defined), or their mature protein coding
 CC portion, active domain coding portion or complementary sequences. A
 CC protein of the invention has cytostatic, immunomodulator, antimicrobial,
 CC anti-inflammatory, vulnary, and neuroprotective activity. A
 CC polynucleotide of the invention may have a use in gene therapy. The
 CC polynucleotide and polypeptides encoded by them are useful in
 CC therapeutic (e.g. for treating cancers, bacterial or fungal infection,
 CC autoimmune disorders, inflammations, Parkinson's disease, allergies or
 CC wounds), diagnostic and research methods. In particular, they are useful
 CC in antisense therapy, gene therapy, forensic, gene mapping,
 CC identification of mutations responsible for genetic disorders or other
 CC traits, to assess biodiversity, or to produce many types of data and
 CC products dependent on DNA and amino acid sequences. The polypeptides may
 CC be used to generate an antibody that specifically binds the polypeptide.
 CC These antibodies are useful for detecting or quantifying the polypeptide
 CC in the tissue. The polypeptides are also useful as molecular weight
 CC markers or as food supplements. The sequences shown in ADJ33672-ADJ33887
 CC represent proteins of the invention.
 CC
 XX
 XX Sequence 118 AA:
 SQ
 Query Match 69.8%; Score 377.5; DB 5; Length 118;
 Best Local Similarity 80.6%; Pred. No. 4; Se-32;
 Matches 79; Conservative 1; Mismatches 13; Indels 5; Gaps 3;
 QY 10 RGRGCGQEA-PDVAVAFVAPGE---SOOEPPNDNDIEPQREGRPTPEERKVEGDQCE 65
 DB 21 RGRGCGQEA-PDVAVAFVAPGE---SOOEPPNDNDIEPQREGRPTPEERKVEGDQCE 80
 QY 66 MDLEKTRSERGSDGSDVKEKTPPN-PKAKTKKAGDQCP 102
 DB 81 MDLEKTRSERGSDGSDVKEKTPPN-PKAKTKKAGDQCP 118

RESULT 12
 ID AAY83168
 ID AAY83168 standard; protein, 109 AA.
 XX
 XX AAY83168;
 AC
 XX
 XX 24-JUL-2000 (first entry)
 DT
 XX
 XX PAGE2 polypeptide.
 DE
 XX
 XX PAGE-4; MAGE; GAGE; reproduction; testis; prostate; fallopian tube;
 KM uterus; placenta; cancer; major histocompatibility complex; MHC; CTL;
 KM cytotoxic T lymphocyte; immune response; antibody; drug delivery;
 KM immunocjugate.
 XX
 XX Homo sapiens.
 OS
 XX
 XX W0200012706-A1.
 PN
 XX
 XX 09-MAR-2000.
 PD
 XX
 XX 31-AUG-1999; 99WO-US020046.
 PF
 XX
 XX 01-SEP-1998; 98US-0098993P.
 PR
 XX
 XX (USSH) US DEPT HEALTH & HUMAN SERVICES.
 PA
 PI Pastan I, Brinkmann U, Vasmatzis G, Lee B;
 XX
 XX WPI; 2000-237869/20.
 XX
 XX
 PT Isolated PAGE-4 protein and peptide used for inducing a cytotoxic T
 PT lymphocyte response and for raising antibodies which can be used to
 PT detect the presence of PAGE-4 in cell samples or body tissues.
 XX
 PS Disclosure; Fig 1b; 63pp; English.
 XX
 XX PAGE-4 is a gene preferentially expressed in normal male and female
 CC reproductive tissues e.g. prostate, testis, fallopian tube, uterus and
 CC placenta, as well as in prostate cancer, testicular cancer and uterine
 CC cancer. This expression pattern makes it a target for diagnosis and for
 CC vaccine based therapy of such neoplasms. An isolated PAGE-4 peptide which
 CC induces a cytotoxic T lymphocyte response when bound to a major
 CC histocompatibility complex (MHC) class I molecule or the isolated PAGE-4
 CC protein can be used in immunogenic compositions to raise a cytotoxic T
 CC lymphocyte response against cells expressing PAGE-4 including cancer
 CC cells of the prostate, uterus and testis. The nucleic acids encoding PAGE
 CC -4 or PAGE-4 peptide fragments can also be used in these compositions.
 CC Antibodies against PAGE-4 and its peptide fragments can be used in
 CC detecting the presence of PAGE-4 and PAGE-4 coding sequences in cell
 CC samples or body tissues. The presence of PAGE-4 in tissues which are not
 CC related to reproduction can be indicative of the spread of cancerous
 CC reproductive tissue. PAGE-4 can also be used to raise antibodies which
 CC are then used as the targeting group of immunocjugates comprising
 CC toxins used in therapeutic applications. This has applications for drug
 CC delivery systems. This sequence is of the PAGE2 polypeptide which shares
 CC sequence similarity with PAGE-4
 CC
 XX
 XX Sequence 109 AA:
 SQ
 Query Match 54.6%; Score 295.5; DB 3; Length 109;
 Best Local Similarity 61.5%; Pred. No. 26-23;
 Matches 64; Conservative 4; Mismatches 31; Indels 5; Gaps 1;
 QY 4 RYRSRRGRGQGEAPDVAVAFVAPGE-----SOOEPPNDNDIEPQREGRPTPEERK 58
 DB 6 RYRSRRGRGQGEAPDVAVAFVAPGE-----SOOEPPNDNDIEPQREGRPTPEERK 65
 QY 59 VEGDCQEMDLKTRSERGSDGSDVKEKTPPN-PKAKTKKAGDQCP 102
 DB 66 VEGDCQEMDLKTRSERGSDGSDVKEKTPPN-PKAKTKKAGDQCP 109

```
RESULT 13
ADG42677
ID ADG42677 standard; protein; 109 AA.
XX
XX ADG42677;
AC
XX
XX 26-FEB-2004 (first entry)
DT
XX
XX Human PAGE-2 protein #2.
DE
XX
XX Human; NOVX; GAGE-like protein; interferon; GPCR; mast cell protease;
KW hepatocyte nuclear factor; cancer; immune disorder; hepatic disorder;
KM trauma; HIV; Parkinson's disease; Alzheimer's disease.
XX
OS Homo sapiens.
XX
XX US2003202971-A1.
XX
XX 30-OCT-2003.
XX
XX 06-MAY-2002; 2002US-00139854.
XX
XX 15-FEB-2000; 2000US-0182723P.
XX
XX 15-FEB-2000; 2000US-0182724P.
XX
XX 15-FEB-2000; 2000US-0182733P.
XX
XX 22-FEB-2000; 2000US-0183896P.
XX
XX 23-FEB-2000; 2000US-0184275P.
XX
XX 23-FEB-2000; 2000US-0184482P.
XX
XX 23-FEB-2000; 2000US-0184497P.
XX
XX 24-FEB-2000; 2000US-0184744P.
XX
XX 13-APR-2000; 2000US-0197083P.
XX
XX 10-AUG-2000; 2000US-0224157P.
XX
XX 18-SEP-2000; 2000US-0233405P.
XX
XX 27-SEP-2000; 2000US-0236060P.
XX
XX 02-JAN-2001; 2001US-0259414P.
XX
XX 18-JAN-2001; 2001US-0262454P.
XX
XX 14-FEB-2001; 2001US-00783429.
XX
XX (MAJU/) MAJUMDER K.
XX
XX Majumder K;
XX
XX WPI; 2003-900615/82.
XX
XX Novel isolated NOVX polypeptide useful for treating cancer, immune
PT disorders, hepatic disorders, AIDS, Parkinson's disease.
XX
XX Disclosure; SEQ ID NO 38; 155pp; English.
XX
XX The invention relates to an isolated NOVX polypeptide comprising mature
CC form of protein having a fully defined sequence ADG42655ADG42659, NOV8
CC and NOV10, a variant of mature form of the protein, where any amino acid
CC in mature protein changed to a different amino acid, provided that not
CC more than 50% of amino acid in sequence of mature protein are so changed,
CC or its fragment. Also included are an isolated nucleic acid molecule (NA)
CC encoding NOVX (or portion or variant), a vector comprising NOVX NA, a
CC cell comprising the vector, an anti-NOVX antibody, determining (M1) the
CC presence or amount of NOVX NA in a sample, a pharmaceutical composition
CC (comprising NOVX, NOVX NA or the antibody and carrier) and a kit
CC disclosing NOVX proteins showing homology to GAGE (G-antigen) proteins
CC (NOV1-4), interferons (NOV5 and 6), G protein-coupled receptors (NOV7),
CC Mast cell proteases (NOV8 and NOV10-13) and hepatocyte nuclear factors
CC (NOV9). The antibody is useful for determining the presence or amount of
CC NOVX in a sample. NOVX is useful for identifying an agent that binds to
CC NOVX and for identifying a potential therapeutic agent for use in
CC treatment of a pathology, where the pathology use related to aberrant
CC expression or aberrant physiological interaction of NOVX. NOVX, NOVX NA
CC or the antibody is useful for treating or preventing a pathology
CC associated with NOVX e.g. cancer, immune disorder, hepatic disorder,
CC trauma, HIV, Parkinson's disease, and Alzheimer's disease. The present
CC sequence represents a protein showing sequence similarity to a NOVX
CC protein (or fragment).
```

```
XX
XX SQ Sequence 109 AA;
XX
XX Query Match 54.6%; Score 295.5; DB 7; Length 109;
XX Best Local Similarity 61.5%; Pred. No. 2e-23;
XX Matches 64; Conservative 4; Mismatches 31; Indels 5; Gaps 1;
XX
XX 4 RYRSRSRGKGGQGVADVAVFVAPGE-----SQSEPTDNDJEPGQERKGTPIERK 58
XX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
XX 6 RARSQSSRGNDQSSQPVGSYIVQEPTEBKRCQSEPTDNDJEPGQERKGTPIERK 65
XX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
XX 59 VEGDQEMDLEKTRSRGDSGVKKEPTPNPFGHAKTKKAGDGP 102
XX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
XX 66 VEGDCQEMALKTEDEPDGPDVREGIMPTDITFVLEAGDAQP 109
XX
XX
XX RESULT 14
XX ADG42677
XX ID ADG42667 standard; protein; 109 AA.
XX
XX ADG42667;
XX
XX 26-FEB-2004 (first entry)
DT
XX
XX Human PAGE-2 protein #1.
DE
XX
XX Human; NOVX; GAGE-like protein; interferon; GPCR; mast cell protease;
KW hepatocyte nuclear factor; cancer; immune disorder; hepatic disorder;
KM trauma; HIV; Parkinson's disease; Alzheimer's disease.
XX
XX Homo sapiens.
XX
XX US2003202971-A1.
XX
XX 30-OCT-2003.
XX
XX 06-MAY-2002; 2002US-00139854.
XX
XX 15-FEB-2000; 2000US-0182723P.
XX
XX 15-FEB-2000; 2000US-0182724P.
XX
XX 15-FEB-2000; 2000US-0182733P.
XX
XX 22-FEB-2000; 2000US-0183896P.
XX
XX 23-FEB-2000; 2000US-0184275P.
XX
XX 23-FEB-2000; 2000US-0184482P.
XX
XX 23-FEB-2000; 2000US-0184497P.
XX
XX 24-FEB-2000; 2000US-0184744P.
XX
XX 13-APR-2000; 2000US-0197083P.
XX
XX 10-AUG-2000; 2000US-0224157P.
XX
XX 18-SEP-2000; 2000US-0233405P.
XX
XX 27-SEP-2000; 2000US-0236060P.
XX
XX 02-JAN-2001; 2001US-0259414P.
XX
XX 18-JAN-2001; 2001US-0262454P.
XX
XX 14-FEB-2001; 2001US-00783429.
XX
XX (MAJU/) MAJUMDER K.
XX
XX Majumder K;
XX
XX WPI; 2003-900615/82.
XX
XX Novel isolated NOVX polypeptide useful for treating cancer, immune
PT disorders, hepatic disorders, AIDS, Parkinson's disease.
XX
XX Disclosure; SEQ ID NO 28; 155pp; English.
XX
XX The invention relates to an isolated NOVX polypeptide comprising mature
CC form of protein having a fully defined sequence ADG42655ADG42659, NOV8
CC and NOV10, a variant of mature form of the protein, where any amino acid
CC in mature protein changed to a different amino acid, provided that not
CC more than 50% of amino acid in sequence of mature protein are so changed,
CC or its fragment. Also included are an isolated nucleic acid molecule (NA)
CC encoding NOVX (or portion or variant), a vector comprising NOVX NA, a
CC cell comprising the vector, an anti-NOVX antibody, determining (M1) the
```


CC presence or amount of NOVX NA in a sample, a pharmaceutical composition
 CC comprising NOVX, NOVX NA or the antibody and carrier) and a kit
 CC comprising in one or more containers. NOV8 and NOV10 are 2 of 13
 CC disclosed NOVX proteins showing homology to GAGE (G-antigen) proteins
 CC (NOV1-4), interferons (NOV5 and 6), G protein-coupled receptors (NOV7),
 CC Mast cell proteases (NOV8 and NOV10-13) and hepatocyte nuclear factors
 CC (NOV9). The antibody is useful for determining the presence or amount of
 CC NOVX in a sample. NOVX is useful for identifying an agent that binds to
 CC NOVX and for identifying a potential therapeutic agent for use in
 CC treatment of a pathology, where the pathology use related to aberrant
 CC expression or aberrant physiological interaction of NOVX. NOVX NA
 CC or the antibody is useful for treating or preventing a pathology
 CC associated with NOVX e.g. cancer, immune disorder, hepatic disorder,
 CC trauma, HIV, Parkinson's disease, and Alzheimer's disease. The present
 CC sequence represents a protein showing sequence similarity to a NOVX
 CC protein (or fragment).
 XX
 SQ Sequence 109 AA;
 XX
 Query Match 54.6%; Score 295.5; DB 7; Length 109;
 Best Local Similarity 61.5%; Pred. No. 2e-23;
 Matches 64; Conservative 4; Mismatches 31; Indels 5; Gaps 1;
 QY 4 RYRSRSGRGDQGEADPVVAFVAPGE-----SQEPPPTNDIEPGQREGTPIPERK 58
 DB 6 RARSQSSERGNDESSQPGVSIVQEPTEKQOEPPPTNDIEPGQREGTPIPERK 65
 QY 59 VEGDCQEMDLEKTRSERGSGSDYKEKTPPNPKAKTKKAGDGP 102
 DB 66 VEGDCQEMALKIETDEPGDGPVREGIMPTFPLTKVLEAGDAP 109
 RESULT 15
 ADJ55845 standard; peptide; 109 AA.
 XX
 ADJ55845;
 XX
 DT 06-MAY-2004 (first entry)
 XX
 DE Peptide homologous to a fragment of a human NOV1 protein SeqID 28.
 XX
 KW human; NOVX; neurogenesis; cell differentiation; cell motility;
 KW cell proliferation; hematopoiesis; angiogenesis; proliferative disorder;
 KW cancer; mastocytosis; immune disorder; hepatic disorder; cirrhosis;
 KW viral infection; AIDS; hepatitis; neuro-olfactory; trauma; surgery;
 KW neoplastic; adenocarcinoma; lymphoma; asthma; Crohn's disease;
 KW multiple sclerosis; Alibright hereditary osteodystrophy; cytoskeletal;
 KW immunosuppressive; hepatocytic; virulence; anti-HIV; antiinflammatory;
 KW vulnerability; antiasthmatic; neuroprotective.
 XX
 OS Homo sapiens.
 XX
 PN US2003199465-A1.
 XX
 PD 23-OCT-2003.
 XX
 PF 22-APR-2002; 2002US-00131409.
 XX
 PR 15-FEB-2000; 2000US-0182723P.
 PR 15-FEB-2000; 2000US-0182724P.
 PR 15-FEB-2000; 2000US-0182733P.
 PR 22-FEB-2000; 2000US-0183966P.
 PR 23-FEB-2000; 2000US-0184275P.
 PR 23-FEB-2000; 2000US-0184482P.
 PR 23-FEB-2000; 2000US-0184497P.
 PR 24-FEB-2000; 2000US-0184744P.
 PR 13-APR-2000; 2000US-0197083P.
 PR 03-JUL-2000; 2000US-0215855P.
 PR 10-AUG-2000; 2000US-0224157P.
 PR 18-SEP-2000; 2000US-0233405P.
 PR 27-SEP-2000; 2000US-0236060P.
 PR 02-JAN-2001; 2001US-0259414P.

PR 18-JAN-2001; 2001US-0262454P.
 PR 14-FEB-2001; 2001US-00783429.
 PR 03-JUL-2001; 2001US-00898953.
 XX
 PA (MALY/) MALYANKAR U M.
 PA (TCHE/) TCHEPNEV V T.
 PA (PADI/) PADIGARU M.
 PA (TAUP/) TAUPIER R J.
 PA (SPYT/) SPYTEK K A.
 PA (GUOX/) GUO X.
 PA (SPAD/) SPADERNA S K.
 PA (BOLD/) BOLDOG F L.
 PA (GERL/) GERLACH V.
 PA (ELLE/) ELLERMAN K.
 PA (MACD/) MACDOUGALL J R.
 PA (SMIT/) SMITHSON G.
 XX
 PI Malynkar UM, Tchepnev VT, Padigaru M, Taupier RJ, Spytek KA;
 PI Guo X, Spaderna SK, Boldog FL, Gerlach V, Ellerman K, Macdougall JR;
 PI Smithson G;
 XX
 DR WPI; 2003-900202/82.
 XX
 PT New polypeptides useful for treating e.g. cancer and mastocytosis, immune
 PT disorders, hepatic disorders, viral infections, asthma.
 XX
 PS Disclosure; SEQ ID NO 28; 86pp; English.
 XX
 CC This invention relates to a novel nucleic acids, and encoded polypeptides
 CC thereof, which have properties related to the stimulation of biochemical
 CC or physiological responses in a cell, tissue, organ or organism.
 CC Specifically, it refers to the use of biologically active fragments for
 CC diagnostic and prognostic assays and furthermore in the treatment of
 CC diverse pathological conditions. The present invention describes novel
 CC human NOVX proteins, as well as methods to identify small molecules that
 CC can be used to modulate or inhibit various processes including
 CC neurogenesis, cell differentiation, cell motility, cell proliferation,
 CC hematopoiesis and angiogenesis. Furthermore, they can be used in the
 CC manufacture of medicaments to treat proliferative disorders (e.g. cancer
 CC and mastocytosis), immune disorders, hepatic disorders (e.g. cirrhosis),
 CC viral infections (e.g. AIDS and hepatitis), disorders of the neuro-
 CC olfactory system (e.g. trauma, surgery and/or neoplastic disorders),
 CC adenocarcinoma, lymphoma, asthma, Crohn's disease, multiple sclerosis and
 CC also for treating Alibright hereditary osteodystrophy. Accordingly, they
 CC exhibit cytostatic, immunosuppressive, hepatocytic, virulence, anti-HIV,
 CC antiinflammatory, vulnerability, antiasthmatic and neuroprotective
 CC activities. This peptide is homologous to a fragment of a human NOVX
 CC protein of the invention.
 XX
 SQ Sequence 109 AA;
 XX
 Query Match 54.6%; Score 295.5; DB 7; Length 109;
 Best Local Similarity 61.5%; Pred. No. 2e-23;
 Matches 64; Conservative 4; Mismatches 31; Indels 5; Gaps 1;
 QY 4 RYRSRSGRGDQGEADPVVAFVAPGE-----SQEPPPTNDIEPGQREGTPIPERK 58
 DB 6 RARSQSSERGNDESSQPGVSIVQEPTEKQOEPPPTNDIEPGQREGTPIPERK 65
 QY 59 VEGDCQEMDLEKTRSERGSGSDYKEKTPPNPKAKTKKAGDGP 102
 DB 66 VEGDCQEMALKIETDEPGDGPVREGIMPTFPLTKVLEAGDAP 109

Search completed: August 24, 2005, 18:42:12
 Job time : 74 secs

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GenCore version 5.1.6
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OM protein - protein search, using SW model

Run on: August 24, 2005, 18:35:22 ; Search time 21 Seconds

(without alignments)
467.339 Million cell updates/sec

Title: US-09-763-393-1

Perfect score: 541

Sequence: 1 MSARVRSRGRGSDGQEPD.....EKTPPKAKTKKAGDGP 102

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Database :

1: PIR 79:*
2: PIR1:*
3: PIR2:*
4: PIR3:*
5: PIR4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	104.5	19.3	792	2 H83736	subtilisin-type a1
2	96.5	17.8	229	1 W4WL8	B4 protein - human
3	96.5	17.8	325	2 T18283	hypothetical prote
4	94.5	17.5	524	2 S35551	transcription fact
5	92.5	17.1	1791	2 T02345	hypothetical prote
6	92	17.0	606	2 S70358	centromere protein
7	89	16.5	396	1 A58938	surface protein rh
8	88	16.3	755	2 S32103	filensin - bovine
9	88	16.3	913	2 T52485	neurofilament prot
10	88	16.3	2109	2 E89066	protein H05009.1 (
11	88	16.3	2109	2 T33247	hypothetical prote
12	87.5	16.2	517	2 S20248	transcription fact
13	87	16.1	798	2 I50479	neurofilament medi
14	86	15.9	692	2 T13161	A-kinase anchor pr
15	85	15.7	649	2 D85135	hypothetical prote
16	85	15.7	896	2 T24169	hypothetical prote
17	85	15.7	906	2 T24166	hypothetical prote
18	85	15.7	5037	2 B35041	ryanodine receptor
19	84.5	15.6	359	2 S40746	hypothetical prote
20	84.5	15.6	1166	2 H86341	hypothetical prote
21	83.5	15.4	355	2 A33821	chromosomal protei
22	83.5	15.4	548	1 OPRCL	neurofilament tripl
23	83	15.3	837	2 T49562	neurofilament-H re
24	82.5	15.2	599	2 S18735	centromere protein
25	82.5	15.2	1271	2 T24008	hypothetical prote
26	82.5	15.2	5032	1 A35041	ryanodine receptor
27	82	15.2	541	2 T46423	hypothetical prote
28	82	15.2	610	2 T17775	protein kinase hom
29	82	15.2	690	2 H84309	protoporphyrin IX

30	81.5	15.1	247	2 A29545	submandibular gland
31	81.5	15.1	811	2 T04638	hypothetical prote
32	81.5	15.1	824	2 UC7532	cellulase (EC 3.2.
33	81.5	15.1	1192	2 A71623	probable secreted
34	81	15.0	316	2 JC6146	Card protein - Myx
35	81	15.0	952	2 S64473	translation initia
36	80.5	14.9	378	1 A2Z0AB	circumsporozoite p
37	80.5	14.9	385	2 A48571	circumsporozoite p
38	80.5	14.9	646	1 S15901	chromogranin B pre
39	80.5	14.9	761	2 T32183	hypothetical prote
40	80.5	14.9	972	2 T49773	related to actin-1
41	80.5	14.9	2359	2 T03094	A-kinase anchor pr
42	80.5	14.9	5035	1 I46646	ryanodine receptor
43	80.5	14.9	5138	2 B96695	hypothetical prote
44	80	14.8	554	2 UM0094	neurofilament prot
45	80	14.8	2172	2 T20145	hypothetical prote

ALIGNMENTS

```

RESULT 1
H83736
subtilisin-type alkaline proteinase (EC 3.4.21.-) apr precursor [similarity] - Bacillus
C/Species: Bacillus halodurans
C/Date: 01-Dec-2000 #sequence_revision 01-Dec-2000 #text_change 09-Jul-2004
C/Accession: H83736
R/Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sawaki, R.; Masui, N.; Fujii, F.; Hara
Nucleic Acids Res. 28, 4317-4331, 2000
A/Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and
A/Reference number: A83650; MUID:20512582; PMID:11058132
A/Accession: H83736
A/Status: preliminary
A/Molecule type: DNA
A/Residues: 1-792 <STO>
A/Cross-references: UNIPROT:Q9KFO3; GB:AP001509; GB:BA000004; NID:G10173176; PIDN:BA804
A/Experimental source: strain C-125
C/Genetics:
A/Gene: apr
C/Keywords: hydrolase; serine proteinase
F.1-28/Domain: signal sequence #status predicted <Sig>

Query Match      19.3%; Score 104.5; DB 2; Length 792;
Best Local Similarity 26.4%; Pred. No. 0.21;
Matches 29; Conservative 16; Mismatches 50; Indels 15; Gaps 3;

QY      7 SSSRGSGDQEPDVAFVAPGSGOEPPTNODIEP--GGERGG-----TPPIERK 58
          | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      361 SSGHRLVGYGLAQVYSTPPDEENESPAENPQEPDSGKENSQSTPPDEEN 420
          | | | | | | | | | | | | | | | | | | | | | | | | | |
QY      59 VEGDQENDLEKTRSEBGSDVKEKTPP-----NPKAKTKKAGDQ 101
          | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      421 EESPAEDQEPDSGKENSQSTPPDEENESPAENVQEPDSQK 470
          | | | | | | | | | | | | | | | | | | | | | | | | | |

RESULT 2
W4WL8
B4 protein - human papillomavirus type 8
C/Species: human papillomavirus type 8
C/Date: 30-Jun-1987 #sequence_revision 30-Jun-1987 #text_change 09-Jul-2004
C/Accession: A03677
R/Fuchs, P.G.; Ifthner, T.; Weninger, J.; Pfister, H.
J. Virol. 58, 626-634, 1986
A/Title: Epidermodysplasia verruciformis-associated human papillomavirus 8: genomic seq
A/Reference number: A03019; MUID:86200410; PMID:3009874
A/Accession: A03677
A/Molecule type: DNA
A/Residues: 1-229 <FUC>
A/Cross-references: UNIPROT:P06425; GB:M12737; NID:G333074
A/Note: This ORF is not annotated in GenBank entry PRN8G
C/Superfamily: papillomavirus type 5 B4 protein
C/Keywords: early protein

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Query Match          17.8%; Score 96.5; DB 1; Length 229;
Best Local Similarity 27.1%; Pred. No. 0.29;
Matches 29; Conservative 11; Mismatches 44; Indels 23; Gaps 3;

QY 6 RRSRGRGQGEADPVAVAPGESQOEPP-----TDNODIEPQEREG---TPPI 54
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 71 RKSRSDQGRDPAFGLAPGRSPGLGLAPPYGPGRSPRSQFQGPDPDEDGLQPL 130
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

QY 55 EBRKVGDDQGEWDLKTRSERGDGSVYKKEPPNPKHAKTKKAGDQ 101
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 131 GKGQVEG-----HFGDGDPQGHPPPTPSNGHKHGBGDGE 165
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

RESULT 3
T18283
hypothetical protein G5 - eline mold (Dictyostelium discoideum)
C:Species: Dictyostelium discoideum
C:Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C:Accession: T18283
R:Rieben Jr., W.K.; Gonzales, C.M.; Gonzales, S.T.; Pilkington, K.J.; Kiyosawa, H.; Hugh
Genetics 148, 1117-1125, 1998
A:Title: Dictyostelium discoideum nuclear plasmid Dd95 is a chimera related to the Dd91
A:Reference number: Z14684; MUID:98198836; PMID:9539429
A:Accession: T18283
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-325 <RTE>
A:Cross-references: UNIPROT:O44016; EMBL:U00796; NID:g2702254; PID:g2702258; PIDN:AA0186
C:Genetics:
A:Introns: 85/1

Query Match          17.8%; Score 96.5; DB 2; Length 325;
Best Local Similarity 31.0%; Pred. No. 0.41;
Matches 27; Conservative 13; Mismatches 26; Indels 21; Gaps 3;

QY 29 ESQOEPP--TDNODIEPQEREGTPPIERKVGDCQEMLEKTR----- 72
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 189 EEEBETPAVSEBKEEEBEEETPAVSEBKEEGBEKOKKEKIEBDTETGKKK 248
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

QY 73 ----SRGQSDVKEKTPPNPKHAKTK 95
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 249 DEVMNERODGIRISEKTKNDKPTK-KTK 274
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

RESULT 4
S35551
transcription factor IIF chain RAP74 - African clawed frog
C:Species: Xenopus laevis (African clawed frog)
C:Date: 09-Dec-1993 #sequence_revision 26-May-1995 #text_change 09-Jul-2004
C:Accession: S35551
R:Gong, D.W.; Hasegawa, S.; Wada, K.; Roeder, R.G.; Nakatani, Y.; Horikoshi, M.
Nucleic Acids Res, 20, 6736, 1992
A:Title: Cloning of three putative structural subdomains by comparison of primary st
A:Reference number: S35551; MUID:93126122; PMID:1480494
A:Accession: S35551
A:Status: preliminary; nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-524 <CON>
A:Cross-references: UNIPROT:O04870; EMBL:Z17426; NID:g65029; PIDN:CAA78999.1; PID:g65030
C:Genetics:
A:Gene: RAP74
C:Keywords: DNA binding; transcription regulation

Query Match          17.5%; Score 94.5; DB 2; Length 524;
Best Local Similarity 31.5%; Pred. No. 0.99;
Matches 28; Conservative 15; Mismatches 33; Indels 13; Gaps 4;

QY 11 GRGDQGEADPVAVAPGESQOEPPPTNODIEPQEREGTPPIERKVGDCQEMDLEK 70
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 270 GPFQGE---VDYNSDESSDEELP--GKIKPAKEEGPKGLDQSSSS--ESEEK 320
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

QY 71 TRSERGDSGVKEKTPPNPKHAKTKKAGD 99
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

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DB 321 AEEBEGE----EKKAPTPDNNKKKKGD 345

RESULT 5
T02345
hypothetical protein KIAA0324 - human (fragment)
C:Species: Homo sapiens (man)
C:Date: 05-Mar-1999 #sequence_revision 05-Mar-1999 #text_change 09-Jul-2004
C:Accession: T02345
R:Ricke, D.O.; Bruce, D.; Mundt, M.; Doggett, N.; Munk, C.; Saunders, E.; Robinson, D.;
re, J.; White, S.; Ueng, S.; Tacum, O.; Campbell, C.; Fawcett, J.; Deaven, L.
submitted to the EMBL Data Library, March 1998
A:Description: Sequencing of human chromosome 16p13.3.
A:Reference number: Z14664
A:Accession: T02345
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-1791 <RIC>
A:Cross-references: UNIPROT:O60382; EMBL:AC004493; NID:g2996648; PIDN:AA08453.1; PID:g2
C:Genetics:
A:Map position: 16
A:Introns: 1610/2; 1706/2
A:Note: KIAA0324

Query Match          17.1%; Score 92.5; DB 2; Length 1791;
Best Local Similarity 25.5%; Pred. No. 5;
Matches 26; Conservative 17; Mismatches 38; Indels 21; Gaps 3;

QY 6 RRSRGRGQGEADPVAVF---VAPGESQOEPPPTNODIEPQEREGT----- 51
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 503 RTPSRGRSEDCSSPEPKALPQTPRPRSRSPSPPELNKCLTPQERSGSSSDVKTVAR 562
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

QY 52 PRIERKVGDCQEMDLEKTRSERGDGSVYKKEPPNPKHAKTK 86
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 563 TPLGQRSSSGSQBLDVKPSASPQERSSESSSDPSKAKTRTP 604
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

RESULT 6
S70358
centromere protein B - Chinese hamster
C:Species: Crictetus griseus (Chinese hamster)
C:Date: 21-Apr-1997 #sequence_revision 09-May-1997 #text_change 09-Jul-2004
C:Accession: S70358
R:Bejarano, L.A.; Valdivia, M.M.
Biochim. Biophys. Acta 1307, 21-25, 1996
A:Title: Molecular cloning of an intronless gene for the hamster centromere antigen CENP
A:Reference number: S70358; MUID:96254058; PMID:8652663
A:Accession: S70358
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-606 <BRJ>
A:Cross-references: UNIPROT:P48988; EMBL:U20951; NID:g836955; PIDN:AA06494.1; PID:g8369
C:Keywords: DNA binding

Query Match          17.0%; Score 92; DB 2; Length 606;
Best Local Similarity 28.4%; Pred. No. 1.9;
Matches 27; Conservative 16; Mismatches 42; Indels 10; Gaps 2;

QY 8 RSRGRGQGEADPVAVAPGESQOEPPPTNODIEPQEREGTPPIERKVE-----G 61
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 385 REAGFGGLNNTITTSFKSGBGEEEE---EEEEEEEEEGGEEEEEGBGEEBG 440
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

QY 62 DQGEWDLKTRSERGDGSVYKKEPPNPKHAKTK 96
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 441 EGEEVGEEVEEVEEGDSDDEEEEEESESSSE 475
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

RESULT 7
A58938
surface protein rhotry ROP1 precursor - Toxoplasma gondii
C:Species: Toxoplasma gondii
C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C:Accession: A58938; A45644; S37697

```



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Db      582 ITAVRAVD---GGGAPAP-----SSGEPADGPTDT--AEAGSDPQAEQLLEGVPC 631
QY      61 GDCQEMDLEKTRSERGSDVKEKTPPNPKAKTKEA 97
Db      632 GTAHEKGVPKARSEAEAGNGAETMAAEASAQTRVA 668

```

RESULT 15

```

D85135
hypothetical protein AT4g12610 [imported] - Arabidopsis thaliana
C:Species: Arabidopsis thaliana (mouse-ear cress)
C:Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
C:Accession: D85135
R:anonymous, The European Union Arabidopsis Genome Sequencing Consortium, The Cold Spring
Nature 402, 769-777, 1999
A:Title: Sequence and analysis of chromosome 4 of the plant Arabidopsis thaliana.
A:Reference number: A85001; MUID:20083488; PMID:10617198
A:Accession: D85135
A>Status: preliminary
A:Molecule type: DNA
A:Residues: 1-649 <STO>
A:Cross-references: UNIPROT:Q9SU25; GB:NC_001268; NID:g7267963; PIDN:CAB78304.1; GSPDB:C
C:Genetics:
A:Gene: AT4g12610
A:Map position: 4

```

```

Query Match      15.7%; Score 85; DB 2; Length 649;
Best Local Similarity 28.6%; Pred. No. 7.8;
Matches 26; Conservative 17; Mismatches 42; Indels 6; Gaps 3;

```

```

QY      14 DGGADPDVVA--FVAPGESQGEPPPTDNDIEPQGEREGTPPIERKRVESGDCQEMDLEKT 71
Db      303 DPBEREDLAPRIAPAPPEIKQDEBDENEEEGGLSKSGK---ELKTLGKANGLD-ESD 358
QY      72 RSEKGDGSDVKEKTPPNPKAKTKEAGDGP 102
Db      359 EDDDDSDDEETNYGTVTNSKQKNAKEEP 389

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Search completed: August 24, 2005, 18:43:43
 Job time : 23 secs

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; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: UNSURE
; LOCATION: 82
; OTHER INFORMATION: Xaa = Ala, Glu
; NAME/KEY: UNSURE
; LOCATION: 30
; OTHER INFORMATION: Xaa = Glu, Glu
; NAME/KEY: UNSURE
; LOCATION: 55
; OTHER INFORMATION: Xaa = Glu, Lys
; NAME/KEY: UNSURE
; LOCATION: 93
; OTHER INFORMATION: Xaa = Ile, Thr
; NAME/KEY: UNSURE
; LOCATION: 94
; OTHER INFORMATION: Xaa = Leu, Met
; NAME/KEY: UNSURE
; LOCATION: 99
; OTHER INFORMATION: Xaa = Leu, Pro
; NAME/KEY: UNSURE
; LOCATION: 67
; OTHER INFORMATION: Xaa = Met, Val
; NAME/KEY: UNSURE
; LOCATION: 25
; OTHER INFORMATION: Xaa = Pro, Ser
; NAME/KEY: UNSURE
; LOCATION: 65
; OTHER INFORMATION: Xaa = Pro, Thr
US-09-621-976-7592

Query Match      31.4%; Score 170; DB 4; Length 110;
Best Local Similarity 43.1%; Pred. No. 5.1e-11;
Matches 47; Conservative 9; Mismatches 45; Indels 8; Gaps 4;
```

```

QY      1 MSARV-RSRSRGRGDSQAEAPDVVAFV---APGES---QOEPPPTNDODIEPQGE--REGTP 52
      1 MSRHVTRSQSSEKGNQESQPVGVYVQXPTREKQGESEPPPTNDGGINSGEIXNEGAP 60
Db      61 AVGQDXEAFQOBLALIKIEDXPBGDPVREGKXPFDXTKVLEAGEGQ 109

QY      53 PIEREYVEDCCQMDLSEKTRSERGDSGVKEKTPPNPKAKTKEADGQ 101
      61 AVGQDXEAFQOBLALIKIEDXPBGDPVREGKXPFDXTKVLEAGEGQ 109
Db

RESULT 3
US-09-163-748C-8
; Sequence 8, Application US/09163748C
; Patent No. 6509172
; GENERAL INFORMATION:
; APPLICANT: Debacker, Oliver
; APPLICANT: Van den Eynde, Benoit
; APPLICANT: Boon-Falleur, Thierry
; TITLE OF INVENTION: Isolated Nucleic Acid Molecules Which Encode Member Of The Gage
; FILE REFERENCE: Family, The Proteins Encoded, And Uses Thereof
; CURRENT APPLICATION NUMBER: US/09/163,748C
; NUMBER OF SEQ ID NOS: 27
; SEQ ID NO 8
; LENGTH: 116
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
US-09-163-748C-8
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```

Query Match      22.6%; Score 122; DB 4; Length 116;
Best Local Similarity 34.5%; Pred. No. 8e-06;
Matches 39; Conservative 11; Mismatches 51; Indels 12; Gaps 3;
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```

QY      1 MSARVRSRGRGDSQ-EPADVVA-----FVAPGESQOEPPPTNDODIEPQGE-- 48
      1 MSWRGSTVRPRRRRYVEPPPMIGPMRPEQFSDEVPAPTEEGEPATQRODPAAAOEQED 60
Db
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```

QY      49 EGTPIERKVEGDCQEMDLSEKTRSERGDSGVKEKTPPNPKAKTKEAGDQ 101
      61 EGASAGQGPKPADSQEGHNPQTGCECEDPQGMDEPPNPEVXTPEKEXQ 113
Db
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```

RESULT 4
US-09-163-748C-7
; Sequence 7, Application US/09163748C
; Patent No. 6509172
; GENERAL INFORMATION:
; APPLICANT: Debacker, Oliver
; APPLICANT: Van den Eynde, Benoit
; APPLICANT: Boon-Falleur, Thierry
; TITLE OF INVENTION: Isolated Nucleic Acid Molecules Which Encode Member Of The Gage
; FILE REFERENCE: LUD 5558
; CURRENT APPLICATION NUMBER: US/09/163,748C
; NUMBER OF SEQ ID NOS: 27
; SEQ ID NO 7
; LENGTH: 117
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
US-09-163-748C-7
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```

Query Match      19.8%; Score 107; DB 4; Length 117;
Best Local Similarity 32.3%; Pred. No. 0.00033;
Matches 30; Conservative 9; Mismatches 42; Indels 12; Gaps 2;
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QY      16 QEAPDVVAFVAPGESQOEPPPTNDODIEPQGESEGT-----PIERKVEGDCQEMDL 68
      27 QPSDEVPEMIEBATEBEGEPATQRODPAAAGEGEGASAGQPHQTKGKRAHSQEGGC 86
Db      69 EXTRSERGDSGVKEKTPPNPKAKTKEAGDQ 101
      87 ECE-----DGPQGMDEPPNPEEVKTPREGKQ 114
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```

RESULT 5
US-09-873-737A-6
; Sequence 6, Application US/09873737A
; Patent No. 6723534
; GENERAL INFORMATION:
; APPLICANT: Duke University
; APPLICANT: Lin, Haifan
; TITLE OF INVENTION: PORIFIED AND ISOLATED piwi FAMILY GENES AND GENE
; FILE REFERENCE: PRODUCTS AND THERAPEUTIC AND SCREENING METHODS USING SAME
; CURRENT APPLICATION NUMBER: US/09/873,737A
; PRIOR FILING DATE: 2001-06-04
; PRIOR APPLICATION NUMBER: PCT/US99/28764
; PRIOR FILING DATE: 1999-12-03
; PRIOR APPLICATION NUMBER: 60/110,901
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
; LENGTH: 861
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (76)
; OTHER INFORMATION: Xaa=Leu or Ile
; NAME/KEY: misc_feature
; LOCATION: (303)
; OTHER INFORMATION: Xaa=Leu or Ile
; NAME/KEY: misc_feature
; LOCATION: (735)
; OTHER INFORMATION: Xaa=Leu or Ile
US-09-873-737A-6
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```

Query Match 19.8%; Score 107; DB 4; Length 861;
Best Local Similarity 28.3%; Pred. No. 0.0038;
Matches 30; Conservative 18; Mismatches 50; Indels 8; Gaps 3;

Oy 1 MSARVRSRSGRGDQCEAPDVVAFFVA---PG--ESQCEBPPTNDQIEPQOE---EGTP 52
Db 1 MTGRARARARARARQGETNQLVGSRTASQCPGYIQRPRPQPPRABGELFGRRGRKGTAGTA 60

Oy 53 PIERKKVEGDCQEMDLEKTRSERGDSVYEKTPPNPKAKTKEAG 98
Db 61 KSGQLQISAGFQELSXERGGRRRDPFDLGVNTRQLDHYKSEKGT 106

RESULT 6
US-09-873-737A-4
; Sequence 4, Application US/09873737A
; Patent No. 6723534
; GENERAL INFORMATION:
; APPLICANT: Duke University
; APPLICANT: Lin, Hsifan
; TITLE OF INVENTION: PURIFIED AND ISOLATED p1w1 FAMILY GENES AND GENE
; TITLE OF INVENTION: PRODUCTS AND THERAPEUTIC AND SCREENING METHODS USING SAME
; FILE REFERENCE: Attorney Docket No. 6723534 180-104/2
; CURRENT FILING DATE: US/09/873, 737A
; PRIOR FILING DATE: 2001-06-04
; PRIOR APPLICATION NUMBER: PCT/US99/28764
; PRIOR FILING DATE: 1999-12-03
; PRIOR APPLICATION NUMBER: 60/110,901
; PRIOR FILING DATE: 1998-12-04
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 862
; TYPE: PRT
; ORGANISM: Mus sp.
; FEATURES:
; NAME/KEY: misc_feature
; LOCATION: (90)
; OTHER INFORMATION: Xaa=Leu or Ile
; NAME/KEY: misc_feature
; LOCATION: (216)
; OTHER INFORMATION: Xaa=Leu or Ile
; NAME/KEY: misc_feature
; LOCATION: (383)
; OTHER INFORMATION: Xaa=Leu or Ile
; NAME/KEY: misc_feature
; LOCATION: (816)
; OTHER INFORMATION: Xaa=Leu or Ile
US-09-873-737A-4

Query Match 19.7%; Score 106.5; DB 4; Length 862;
Best Local Similarity 29.1%; Pred. No. 0.0043;
Matches 32; Conservative 15; Mismatches 48; Indels 15; Gaps 3;

Oy 1 MSARVRSRSGRGDQCEAPDVVAFFVAPGESQO-----EPPPTNDQIEPQOE--- 48
Db 1 MTGRARARARARARQGE---TVQHVGAAASQCPGYIPRPPQSPTEGDIWGRGRGMV 57

Oy 49 EGTPIERKKVEGDCQEMDLEKTRSERGDSVYEKTPPNPKAKTKEAG 98
Db 58 GATSKSQELQISAGFQELSLAERGGRRRDPFDHXVNTNRQLDHYKSEKGT 107

RESULT 7
US-08-301-162-2
; Sequence 2, Application US/08301162
; Patent No. 6022546
; GENERAL INFORMATION:
; APPLICANT: Knapp, Stefan
; APPLICANT: Ziegelmaier, Robert
; APPLICANT: Kupper, Hans
; TITLE OF INVENTION: Tokoplasma Gonit Antigen, The
; TITLE OF INVENTION: Preparation Thereof and the Use Thereof

```

```

NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
ADDRESSER: Dunner
STREET: 1300 I Street, N.W., Suite 700
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20005-3315
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/301,162
FILING DATE:
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/167,128
FILING DATE:
APPLICATION NUMBER: US 07/623,086
FILING DATE: 06-DEC-1990
APPLICATION NUMBER: DE 33940598.2
FILING DATE: 08-DEC-1989
ATTORNEY/AGENT INFORMATION:
NAME: Fleisher, Raz E.
REGISTRATION NUMBER: 34,331
REFERENCE/DOCKET NUMBER: 02481,1005-00000
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
TELEFAX: 202-408-4400
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 392 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-301-162-2

Query Match 17.3% Score 93.5; DB 3; Length 392;
Best Local Similarity 30.3%, Pred. No. 0.041, Indels 15, Gaps 4
Matches 30; Conservative 15; Mismatches 39;

Cy 16 QEAPDVAVFARAGEEQEPEPTDQDLEPQGEGREGTPPIE---RKVEG-----DC 63
Db 190 QELPPTBEQLPPTPEQGLPPTPEQGLAPSTEGQLPPTPVGEQGLQVPSHGPGQSPPYD 249

Cy 64 QEMDLEKTRSERGGSDVKEKTPPNPKAKTKYEAAGDGP 102
Db 250 QOQLLEPT-EEQOEGP--QEPLPPTTPTTGEQPGEGQP 285

RESULT 8
US-09-461-240-2
Sequence 2, Application US/09461240
Patent No. 6326008
GENERAL INFORMATION:
APPLICANT: Knapp, Stefan
Ziegelmaier, Robert
Kupper, Hans
TITLE OF INVENTION: Toxoplasma Gondii Antigens, The
Preparation Thereof and the Use Thereof
NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
Dunner
STREET: 1300 I Street, N.W., Suite 700
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20005-3315
COMPUTER READABLE FORM:

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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/461,240
FILING DATE: 16-Dec-1999
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/301,162
FILING DATE: <Unknown>
APPLICATION NUMBER: US/08/167,128
FILING DATE: <Unknown>
APPLICATION NUMBER: US 07/623,086
FILING DATE: 06-DEC-1990
APPLICATION NUMBER: DE P3940598.2
FILING DATE: 08-DEC-1989
ATTORNEY/AGENT INFORMATION:
NAME: Fleisher, Raz E.
REGISTRATION NUMBER: 34,331
REFERENCE/DOCKET NUMBER: 02481.1005-00000
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
TELEFAX: 202-408-4400
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 392 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-09-461-240-2

Query Match 17.3%; Score 93.5; DB 3; Length 392;
Best Local Similarity 30.3%; Pred. No. 0.041;
Matches 30; Conservative 15; Mismatches 39; Indels 15; Gaps 4;

QY 16 QEAPDVAVFVAPGSGQEEPTNDNIDIPGQEREGTPPIEE---RKVEG-----DC 63
DB 190 QELPPPTGQLPPTTQGLPPTTQGLAPSTQGLPPTVVGSGQLVVGEGHPGQPPYDD 249

QY 64 QEMDLKTRSRGDSGVKERTPPNPKAKTKYKAGDGP 102
DB 250 QQLLEPT-EEQEGGP--QEPLPPPPPTTREGEGEGQP 285

RESULT 9
US-09-968-927-2
Sequence 2, Application US/09968927
Patent No. 6419,925
GENERAL INFORMATION:
APPLICANT: Knapp, Stefan
Ziegelmaier, Robert
Kupper, Hans
TITLE OF INVENTION: Toxoplasma Gondii Antigens, The
Preparation Thereof and the Use Thereof
NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
Dunner
STREET: 1300 I Street, N.W., Suite 700
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20005-3315
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/968,927
FILING DATE: 03-Oct-2001

CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/301,162
FILING DATE: <Unknown>
APPLICATION NUMBER: US/08/167,128
FILING DATE: <Unknown>
APPLICATION NUMBER: US 07/623,086
FILING DATE: 06-DEC-1990
APPLICATION NUMBER: DE P3940598.2
FILING DATE: 08-DEC-1989
ATTORNEY/AGENT INFORMATION:
NAME: Fleisher, Raz E.
REGISTRATION NUMBER: 34,331
REFERENCE/DOCKET NUMBER: 02481.1005-00000
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
TELEFAX: 202-408-4400
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 392 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-09-968-927-2

Query Match 17.3%; Score 93.5; DB 4; Length 392;
Best Local Similarity 30.3%; Pred. No. 0.041;
Matches 30; Conservative 15; Mismatches 39; Indels 15; Gaps 4;

QY 16 QEAPDVAVFVAPGSGQEEPTNDNIDIPGQEREGTPPIEE---RKVEG-----DC 63
DB 190 QELPPPTGQLPPTTQGLPPTTQGLAPSTQGLPPTVVGSGQLVVGEGHPGQPPYDD 249

QY 64 QEMDLKTRSRGDSGVKERTPPNPKAKTKYKAGDGP 102
DB 250 QQLLEPT-EEQEGGP--QEPLPPPPPTTREGEGEGQP 285

RESULT 10
US-08-301-162-18
Sequence 18, Application US/08301162
Patent No. 6022546
GENERAL INFORMATION:
APPLICANT: Knapp, Stefan
Ziegelmaier, Robert
Kupper, Hans
TITLE OF INVENTION: Toxoplasma Gondii Antigens, The
Preparation Thereof and the Use Thereof
NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
Dunner
STREET: 1300 I Street, N.W., Suite 700
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20005-3315
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/301,162
FILING DATE:
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/167,128
FILING DATE:
APPLICATION NUMBER: US 07/623,086
FILING DATE: 06-DEC-1990
APPLICATION NUMBER: DE P3940598.2

US-09-968-927-18

Query Match 17.3%; Score 93.5; DB 4; Length 428;
Best Local Similarity 30.3%; Pred. No. 0.046;
Matches 30; Conservative 15; Mismatches 39; Indels 15; Gaps 4;

QY 16 QEAPDVVAVFVAGSQQEPPPTDNDIEFGQEREGTPIIE---RKVEG-----DC 63
DB 182 QELPPTEQELPPPTQELPPPTQELPPSTQELPPVGEQGLQVPEHGPGQPPYD 241

QY 64 QEMDEKTRSERGSDVKEKTPPNPKHAKTKKAGDGP 102
DB 242 QQLLEPT-EEQGECP--QELPPPPPPPTRGEGPBGQCP 277

RESULT 13
US-09-303-064-55
Sequence 55, Application US/09303064

GENERAL INFORMATION:
APPLICANT: MAINE, Gregory T.
APPLICANT: HUNT, Jeffery C.
APPLICANT: BROJANAC, Susan
APPLICANT: JYH-TSING SHEU, Michael
APPLICANT: CHOVAN, Linda E.
APPLICANT: TYNER, Joan D.
APPLICANT: HOWARD, Lawrence V.
APPLICANT: PARMEY, Stephen F.
APPLICANT: REMINGTON, Jack S.
APPLICANT: ARAUJO, Fausto
APPLICANT: SUZUKI, Yashuhiro
APPLICANT: LI, Shuli
TITLE OF INVENTION: ANTIGEN COCKTAILS, P35 AND USES THEREOF
FILE REFERENCE: 6361.US.P1
CURRENT APPLICATION NUMBER: US/09/303,064
CURRENT FILING DATE: 1999-04-30
EARLIER APPLICATION NUMBER: 09/086,503
EARLIER FILING DATE: 1998-05-28
NUMBER OF SEQ ID NOS: 55
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 55
LENGTH: 667
TYPE: PRT
ORGANISM: Toxoplasma gondii
US-09-303-064-55

Query Match 17.3%; Score 93.5; DB 3; Length 667;
Best Local Similarity 30.3%; Pred. No. 0.079;
Matches 30; Conservative 15; Mismatches 39; Indels 15; Gaps 4;

QY 16 QEAPDVVAVFVAGSQQEPPPTDNDIEFGQEREGTPIIE---RKVEG-----DC 63
DB 329 QELPPTEQELPPPTQELPPPTQELPPSTQELPPVGEQGLQVPEHGPGQPPYD 388

QY 64 QEMDEKTRSERGSDVKEKTPPNPKHAKTKKAGDGP 102
DB 389 QQLLEPT-EEQGECP--QELPPPPPPPTRGEGPBGQCP 424

RESULT 14
US-09-086-503-55
Sequence 55, Application US/09086503A
Patent No. 6329157
GENERAL INFORMATION:
APPLICANT: MAINE, Gregory T.
APPLICANT: HUNT, Jeffery C.
APPLICANT: BROJANAC, Susan
APPLICANT: JYH-TSING SHEU, Michael
APPLICANT: CHOVAN, Linda E.
APPLICANT: TYNER, Joan D.
APPLICANT: HOWARD, Lawrence V.
TITLE OF INVENTION: ANTIGEN COCKTAILS AND USES THEREOF
FILE REFERENCE: 6361.US.01

CURRENT APPLICATION NUMBER: US/09/086,503A
CURRENT FILING DATE: 1998-05-28

NUMBER OF SEQ ID NOS: 55
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 55
LENGTH: 667
TYPE: PRT
ORGANISM: Toxoplasma gondii
US-09-086-503-55

Query Match 17.3%; Score 93.5; DB 3; Length 667;
Best Local Similarity 30.3%; Pred. No. 0.079;
Matches 30; Conservative 15; Mismatches 39; Indels 15; Gaps 4;

QY 16 QEAPDVVAVFVAGSQQEPPPTDNDIEFGQEREGTPIIE---RKVEG-----DC 63
DB 329 QELPPTEQELPPPTQELPPPTQELPPSTQELPPVGEQGLQVPEHGPGQPPYD 388

QY 64 QEMDEKTRSERGSDVKEKTPPNPKHAKTKKAGDGP 102
DB 389 QQLLEPT-EEQGECP--QELPPPPPPPTRGEGPBGQCP 424

RESULT 15
US-09-949-016-6170
Sequence 6170, Application US/09949016

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
FILE REFERENCE: CLO01307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 6170
LENGTH: 517
TYPE: PRT
ORGANISM: Human
US-09-949-016-6170

Query Match 16.2%; Score 87.5; DB 4; Length 517;
Best Local Similarity 29.9%; Pred. No. 0.26;
Matches 35; Conservative 11; Mismatches 44; Indels 27; Gaps 6;

QY 9 SRGRDGGAPDVVAVFVAGSQQEPP--TDNDIEFGQEREGTPIIEKRVED-----DC 62
DB 275 SDGSSSSQEEPSKA-KAP---QEEGPGVDEQSDSEEEEEKPPPEDEKEEEKKAP 330

QY 63 -QEMDEKTRSERGSDVKEKTPPNPKHAKTKKAGDGP 102
DB 331 TPQEKRRKDSSESDSESDIDSEASSAFPMKKKTPPKRRKPPSGSSRGNSRP 387

Search completed: August 24, 2005, 18:47:22
Job time : 44 secs